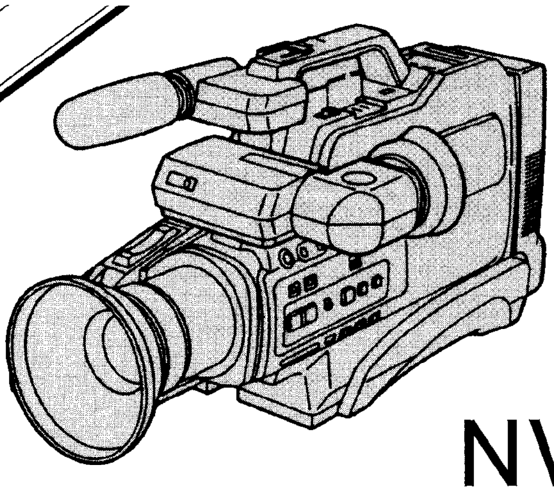
ORDER NO. VMD9308M131

Service Manual

Simplified



Panasonic VHS
PAL

HQ

VHS Movie

NV-M40 E3 B3 A3
NV-M3000 EN3 EM3
NV-M3300MC3

- **SPECIFICATIONS/ТЕХНИЧЕСКИЕ ХАРАКТЕРИСТИКИ**
- **COMPARISON CHART/СРАВНИТЕЛЬНАЯ ТАБЛИЦА**
  - **EVF & schematic diagram/принципиальная схема видоискателя**
  - **CCD drive schematic diagram/принципиальная схема управления ПЗС матрицы**
  - **Process & camera operation schematic diagram/принципиальная схема обработки видеосигнала и блока выбора режимов работы**
  - **Auto focus schematic diagram/принципиальная схема блока автоматической фокусировки**
  - **Power schematic diagram/принципиальная схема блока питания**
  - **System control & servo schematic diagram/принципиальная схема системы управления и сервопривода**
  - **Sub servo schematic diagram/принципиальная схема сервопривода**
  - **Luminance/chrominance & head AMP schematic diagram/принципиальная схема обработки видеосигнала и усилителя видеоголовок**
  - **VITC schematic diagram/принципиальная схема ПВК**
  - **Audio schematic diagram/принципиальная схема аудиоусилителя**
  - **AV jack (A) schematic diagram/принципиальная схема аудио/видео разъема (A)**
  - **AV jack (B) schematic diagram/принципиальная схема аудио/видео разъема (B)**
  - **VTR operation schematic diagram/принципиальная схема блока управления видеомагнитофоном**
  - **Circuit board layout/размещение плат**
  - **Interconnection schematic diagram/схема соединений**
- **EXPLODED VIEWS & PARTS LISTS/СБОРОЧНЫЕ ЧЕРТЕЖИ И СПИСКИ ЗАПАСНЫХ ЧАСТЕЙ**
  - **Exploded views/сборочные чертежи**
    - VTR mechanism section (1)/механизм видеомагнитофона (секция 1)
    - VTR mechanism section (2)/механизм видеомагнитофона (секция 2)
    - Camera lens section/модуль оптики
    - Frame & casing parts section (1)/корпус и шасси (секция 1)
    - Frame & casing parts section (2)/корпус и шасси (секция 2)
    - EVF section/видоискатель
    - Packing parts & accessories section (NV-M40E3/B3/A3, NV-M3000EN3, NV-M3300MC3)/упаковочные материалы и принадлежности (NV-M40E3/B3/A3, NV-M3000EN3, NV-M3300MC3)
    - Packing parts & accessories section (NV-M3000EN3)/упаковочные материалы и принадлежности (NV-M3000EN3)
  - **Mechanical replacement parts list/список механических запасных частей**
  - **Electrical replacement parts list/список электрических запасных частей**

Panasonic

SPECIFICATIONS

ITEM	SPECIFICATION
POWER	Source: BATTERY; DC 12V Consumption; Recording mode; 8.7W (Battery operation) 17.8W (with Zoom Auto Light)
VIDEO RECORDING SYSTEM	4 rotary heads, helical scanning system PAL
TAPE FORMAT	VHS Cassette Tape (Tape width 12.7mm)
TAPE SPEED	23.39mm/s Record/Playback Time 240min. with NV-E240 FF/REW Time less than 12min. with NV-E180
CAMERA	PICK-UP ELEMENT: CCD (Charge Coupled Device)
	STANDARD ILLUMINATION: 1,400 lux
	MINIMUM REQUIRED ILLUMINATION: 1 lux
	LENS: Built-in 8 : 1 2-Speed Power Zoom Lens with Digital AI Auto Focus, Auto Iris, Manual/Auto Focus System, F1.4 (5~40mm), Filter Diameter 49mm
	IMAGE SENSOR: 1/3 inch CCD Image Sensor
	VIEW FINDER: 0.7″ Electric View Finder

ITEM	SPECIFICATION
VIDEO	HEADS: 4 rotary heads, 1 flying erase head
	OUTPUT: PHONO CONNECTOR; 1.0Vp-p 75Ω unbalanced
AUDIO	HEAD: 1 Stationary head (Normal Audio)
	INPUT: MIC IN (M3); −70dB, 4.7kΩ unbalanced
	OUTPUT: PHONO CONNECTOR; −8dB, 47kΩ loaded EARPHONE JACK (M3); −28dB, 8Ω unbalanced
WEIGHT	Approx. 2.6kg (without Battery Pack)
DIMENSIONS	230(W) × 245(H) × 459(D) mm
STANDARD ACCESSORIES	1 pc. AC Adaptor 1 pc. Battery Pack 1 pc. Shoulder Strap 1 pc. AV Output Cable (EXCEPT NV-M40E3/B3) 1 pc. DC Input Cable 1 pc. RF Adaptor (NV-M40A3) 1 pc. Auto Light 1 pc. Battery Pack Charging Connector 1 pc. System Carrying Case (NV-M3000EM3/NV-M40B3) 1 pc. 21 PIN Adaptor (NV-M40E3/B3)

Weight and dimensions shown are approximate.
Specifications are subject to change without notice.

INTRODUCTION

This service manual contains technical information which will allow service Personnels to understand and service the VHS Movie Model NV-M40E3/B3/A3, NV-M3000EN3/EM3 and NV-M3300MC3.
This service manual is based on NV-M40E/B/A, NV-M3000EN/EM and NV-M3300MC service manual.
Therefore please refer to the descriptions (General Description, adjustment procedures and Block Diagrams) which are shown in NV-M40E/A, NV-M3000EN/EM and NV-M3300MC service manual Order No. VRD9207M138 or NV-M40B service manual Order No. VRD9208M145.

1. COMPARISON CHART

1. COMPARISON CHART FOR NV-M40E3/A3/B3, NV-M3300MC3,NV-M3000EN3/EM3.

This chart is described different part from the original model to the new model as shown below.

ORIGINAL MODEL: NV-M40E/A/B,NV-M3300MC,NV-M3000EN/EM.
NEW MODEL : NV-M40E3/A3/B3, NV-M3300MC3,NV-M3000EN3/EM3.

Note : IMPORTANT SAFETY NOTICE
Components identified with the mark <!> have the special characteristics for safety.
When replacing any of these components, use only the same type.

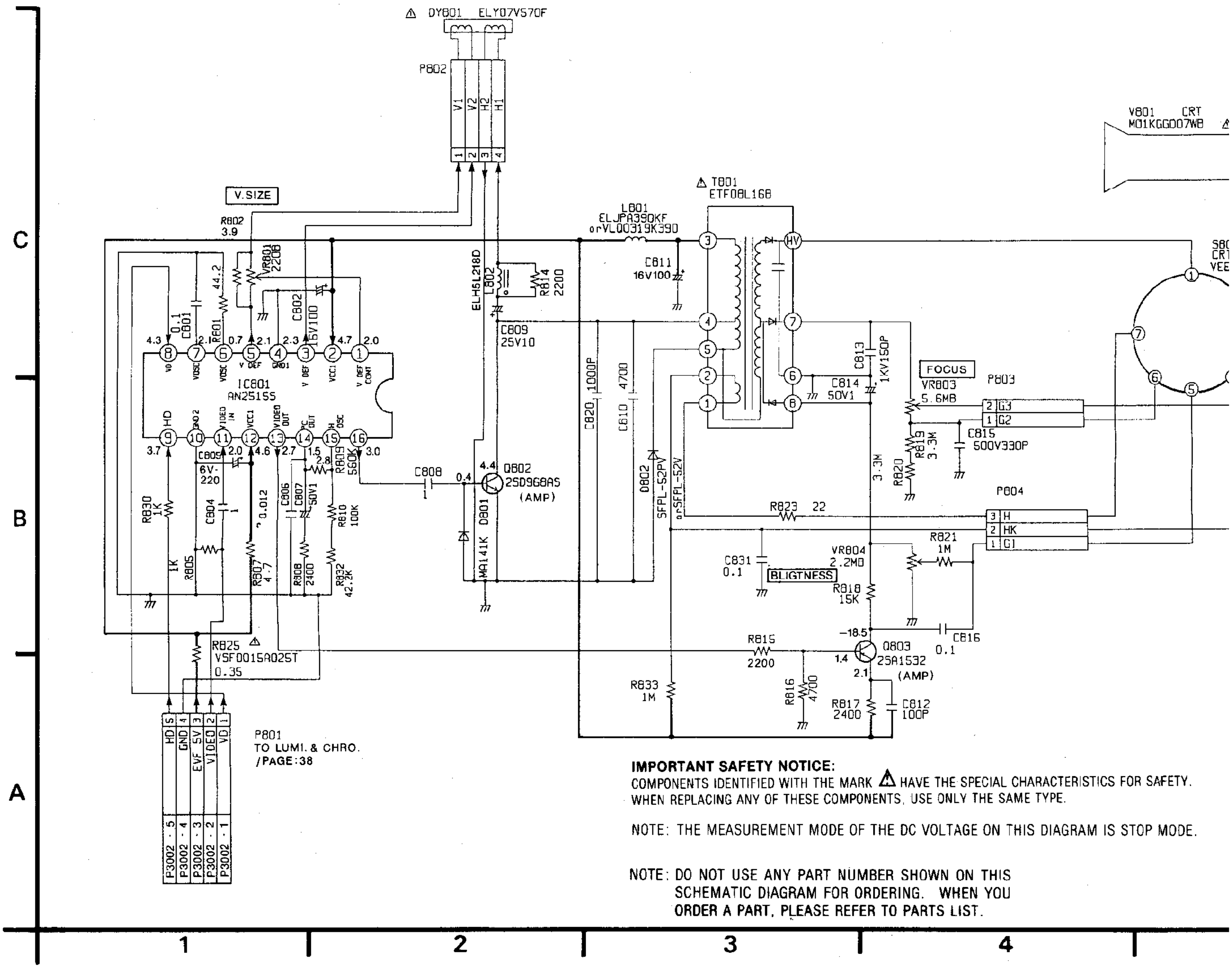
Comparison Chart of Mechanical Replacement parts. (A)..Added, (C)..Changed, (D)..Deleted

Ref. No.	NV-M40E/A/B NV-M3300MC NV-M3000EN NV-M3000EM Part No.	NV-M40E3/A3/B3 NV-M3300MC3 NV-M3000EN3 NV-M3000EM3 Part No.	Pcs /Set	Part Name & Description	Remarks
145 (1)	VXS0112	VXS0119	1	EARTH BRUSH UNIT	(C)
140 (1)	VEG0990	VEG1101	1	CYLINDER UNIT	(C)
138 (1)	VEH0574	-------	1→0		(D)
175 (1)	-------	VEP03A94A	0→1	RTF FLEXIBLE CARD C.B.A.	(A)

Comparison Chart of Electrical Replacement Parts. (A)..Added, (C)..Changed, (D)..Deleted

Ref. No.	NV-M40E/A/B NV-M3300MC NV-M3000EN NV-M3000EM Part No.	NV-M40E3/A3/B3 NV-M3300MC3 NV-M3000EN3 NV-M3000EM3 Part No.	Pcs /Set	Part Name & Description	Remarks
	VEP03945B	VEP03A86B	1	MAIN C.B.A.	(C)
	-------	VEP03A94A	0→1	RTF FLEXIBLE CARD C.B.A.	(A)

2. EVF SCHEMATIC DIAGRAM



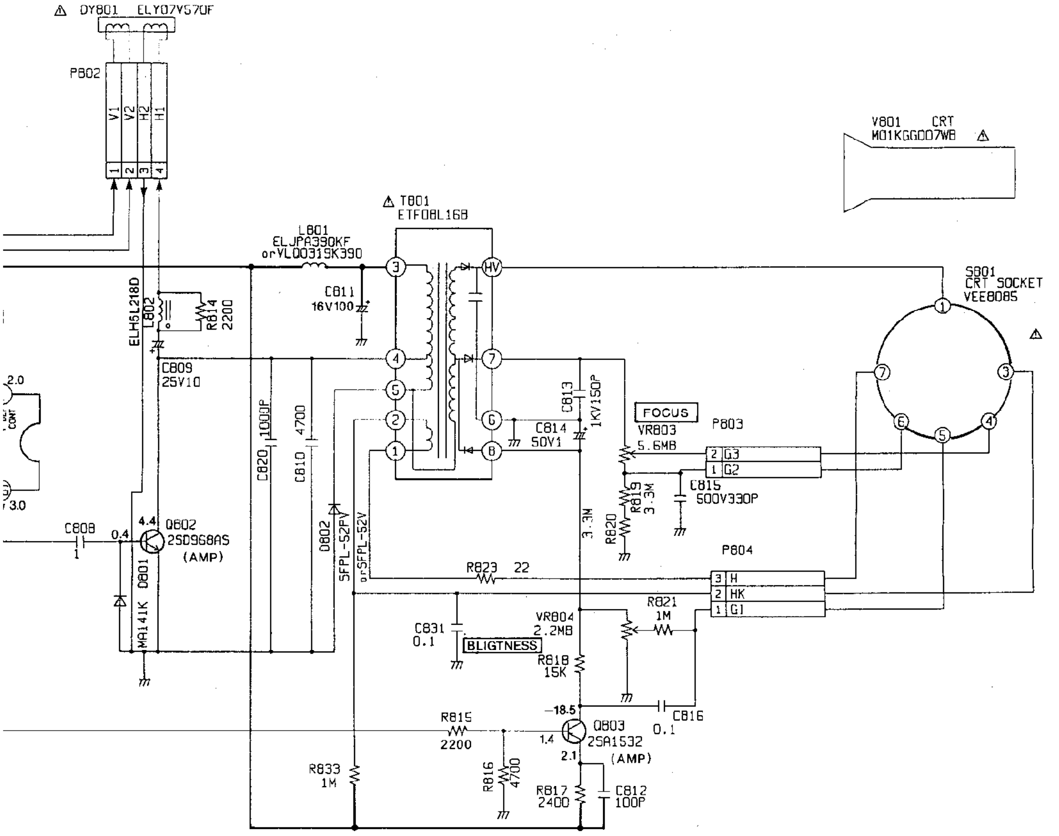
⚠ DY801 ELY07V570F
P802
V1
V2
H2
H1
V.SIZE
R802
3.9
VR801
220B
R801
44.2
C801
0.1
C802
16V100
IC801
AN2515S
HD
VD
VOSC
V DEF
GND1
VCC1
V DEF COMP
GND2
VIDEO IN
VIDEO OUT
HC OUT
H OSC
C805
6V-220
C804
1
R830
1K
R805
1K
R807
4.7
0.012
C806
C807
50V1
R808
2400
R809
560K
R810
100K
R832
42.2K
R825 ⚠
VSF0015A025T
0.35
C808
1
Q802
2SD968AS
(AMP)
D801
MA141K
L802
ELH5L218D
R814
2200
C809
25V10
L801
ELJPA390KF
or VL00319K390
C811
16V100
C820
1000P
C810
4700
D802
SFPL-52PV
or SFPL-52V
⚠ T801
ETF08L168
HV
C813
1KV150P
C814
50V1
3.3M
FOCUS
VR803
5.6MB
R819
3.3M
R820
C815
500V330P
P803
G3
G2
P804
H
HK
G1
R823
22
C831
0.1
VR804
2.2MΩ
BLIGTNESS
R818
15K
R821
1M
C816
0.1
-18.5
R815
2200
Q803
2SA1532
(AMP)
R816
4700
R817
2400
C812
100P
R833
1M
V801 CRT
M01KGG007WB ⚠
P801
TO LUMI. & CHRO.
/PAGE:38
HD
GND
EVF 5V
VIDEO
VD
P3002 - 5
P3002 - 4
P3002 - 3
P3002 - 2
P3002 - 1
4.3
2.1
0.7
2.3
4.7
2.0
3.7
4.6
2.7
1.5
2.8
3.0
0.4
4.4
1.4
2.1
A
B
C
1
2
3
4

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

IAGRAM



⚠ DY801 ELY07V57OF
P802
V1
V2
H2
H1
1
2
3
4
⚠ T801
ETF08L168
L801
ELJPA330KF
orVL00319K390
C811
16V100
3
4
5
2
1
HV
7
6
8
ELH5L218D
L802
R814
2200
C809
25V10
2.0
3.0
C820 1000P
C810 4700
D802
SFPL-52PV
orSFPL-52V
C808
1
0.4
4.4
Q802
2SD968AS
(AMP)
D801
MA141K
C813
1KV150P
C814
50V1
FOCUS
VR803
5.6MB
P803
2 G3
1 G2
R819
3.3M
C815
500V330P
R820
3.3M
V801 CRT
M01KGG007WB ⚠
S801
CRT SOCKET
VEE8085
⚠
1
3
4
5
6
7
P804
3 H
2 HK
1 G1
R823 22
C831
0.1
VR804
2.2MB
BLIGTNESS
R818
15K
R821
1M
-18.5
C816
0.1
R815
2200
1.4
Q803
2SA1532
2.1
(AMP)
R833
1M
R816
4700
R817
2400
C812
100P

EVF C.B.A.	
Transistor	
Q802	A-7
Q803	A-2
Integrated Circuit	
IC801	A-4
Adjustment	
VR801	A-6
VR803	A-3
VR804	A-3
Connector	
P801	A-4
P802	A-4
P803	A-2
P804	A-3

ADDRESS INFORMATION

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

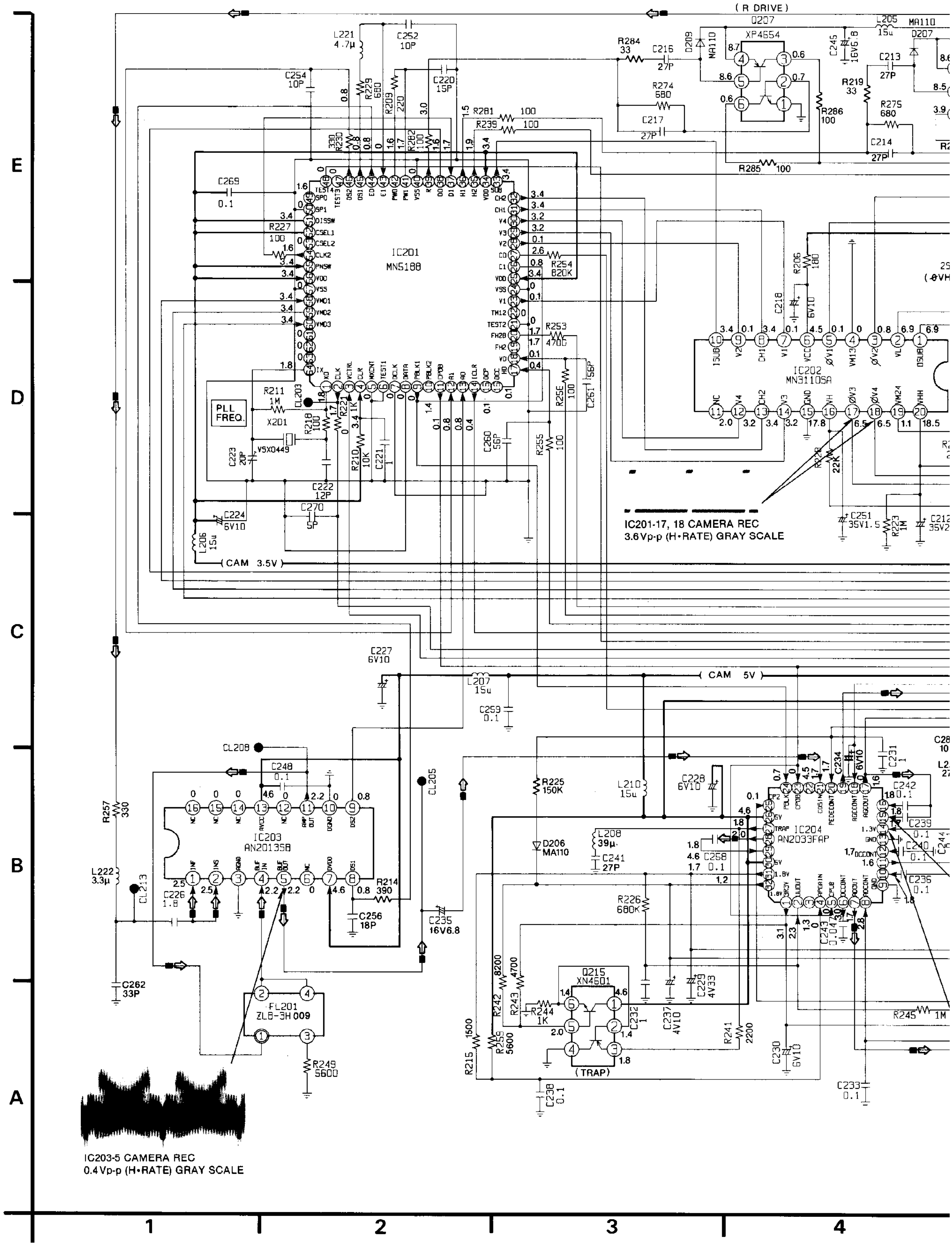
NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS
SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU
ORDER A PART, PLEASE REFER TO PARTS LIST.

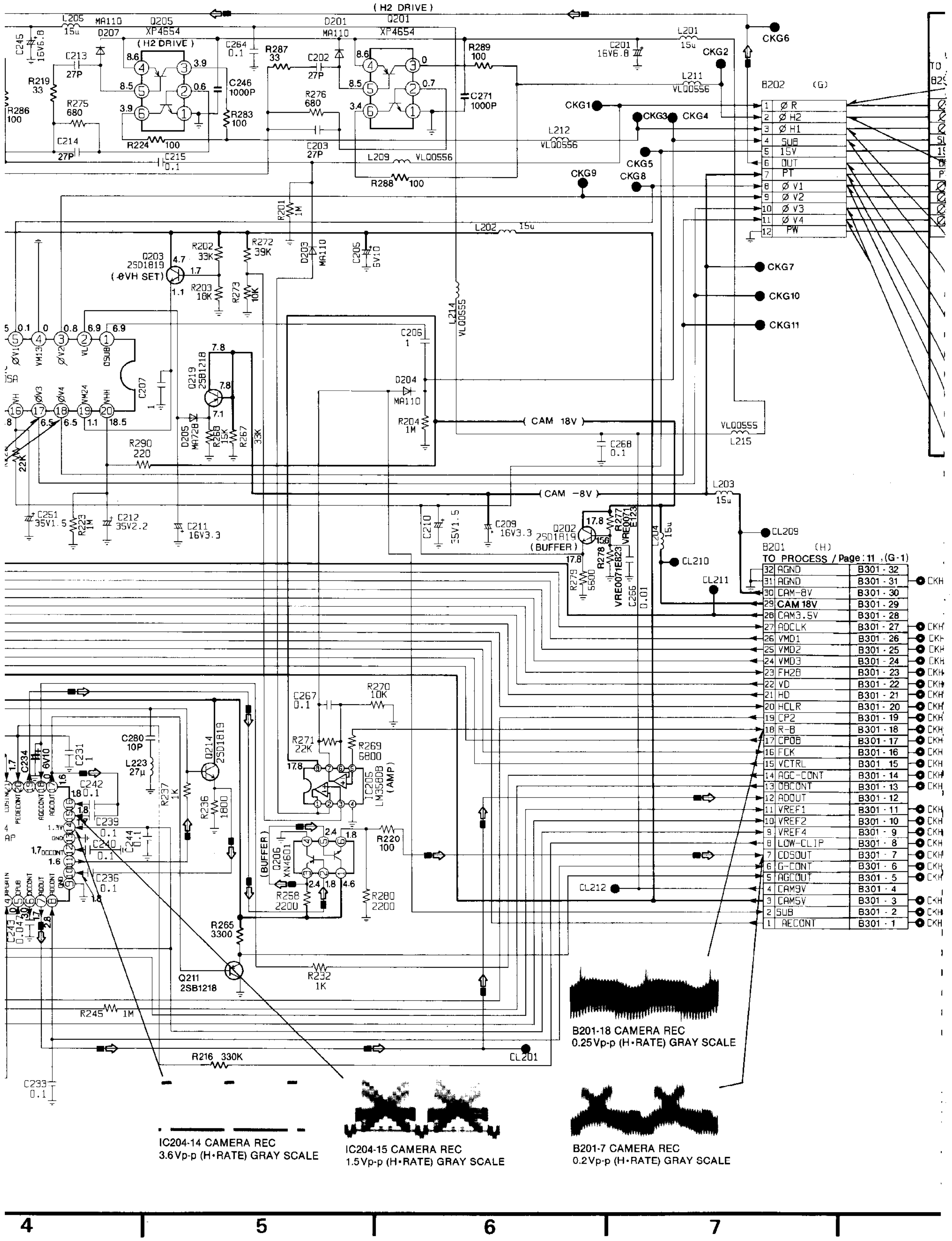
2 3 4 5

4. CCD DRIVE SCHEMATIC DIAGRAM

⇦■ VIDEO SIG


(R DRIVE)
Q207
XP4654
IC201
MN5188
IC202
MN3110SA
IC203
AN20135B
IC204
AN2033FAP
Q215
XN4601
(TRAP)
FL201
ZL8-3H 009
PLL FREQ.
X201
VSX0449
CAM 3.5V
CAM 5V
L221 4.7μ
C252 10P
C254 10P
C220 15P
R229 680
R209 220
R230 330
R262 100
R281 100
R239 100
R284 33
C216 27P
R274 680
C217 27P
D209 MA110
C245 16V6.8
R286 100
R285 100
L205 15u
MA110
D207
C213 27P
R219 33
R275 680
C214 27P
C269 0.1
R227 100
R254 620K
R206 180
C218 6V10
R253 4700
R258 100
C261 56P
R211 1M
CL203
R218 100
R221 1K
R210 10K
C221 1
C223 20P
C222 12P
C270 5P
C224 6V10
L206 15u
C260 56P
R255 100
R228 22K
C251 35V1.5
R223 1M
C212 35V
IC201-17, 18 CAMERA REC
3.6Vp-p (H•RATE) GRAY SCALE
C227 6V10
L207 15u
C259 0.1
CL208
C248 0.1
CL205
R225 150K
L210 15u
C228 6V10
C231 1
C234 6V10
C242 0.1
C239 0.1
C240 0.1
C244
C236 0.1
R257 330
L222 3.3μ
CL213
C226 1.8
R214 390
C256 18P
C235 16V6.8
D206 MA110
L208 39μ
C241 27P
C258 0.1
R226 680K
C237 4V10
C229 4V33
C232 1
R244 1K
R242 8200
R243 4700
R215 1500
R259 5600
R241 2200
C238 0.1
C230 6V10
C243 0.047
R245 1M
C233 0.1
C262 33P
R249 5600
IC203-5 CAMERA REC
0.4Vp-p (H•RATE) GRAY SCALE
A
B
C
D
E
1
2
3
4

I VIDEO SIGNAL



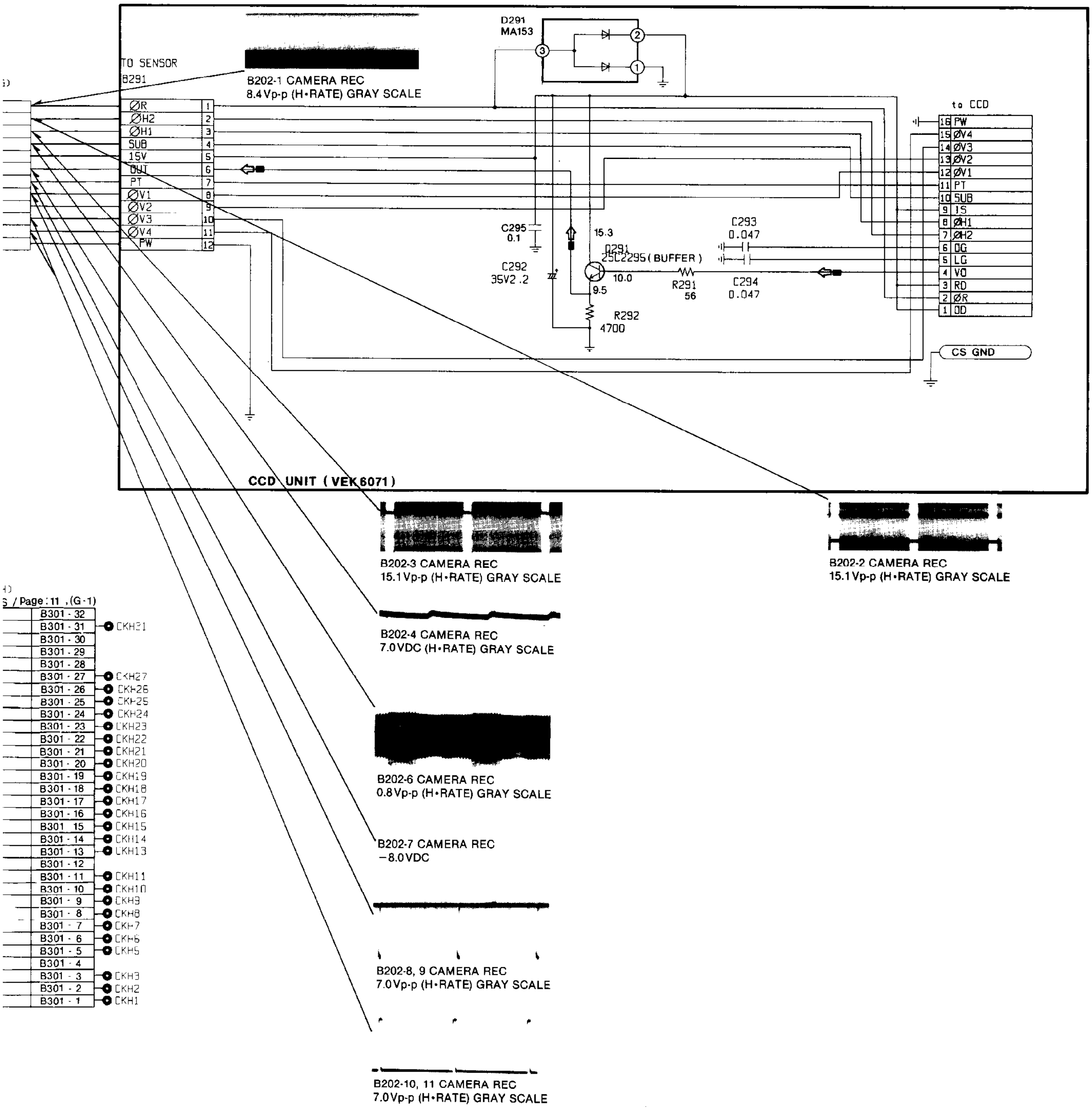
(H2 DRIVE)
L205 15u
MA110 D207
Q205 XP4654
D201 MA110
Q201 XP4654
C245 16V6.8
C213 27P
R219 33
R286 100
R275 680
C214 27P
R224 100
C215 0.1
C264 0.1
C246 1000P
R283 100
R287 33
C202 27P
R276 680
C203 27P
L209 VLQ0556
R288 100
R289 100
C271 1000P
C201 16V6.8
L201 15u
L211 VLQ0556
L212 VLQ0556
CKG1
CKG2
CKG3
CKG4
CKG5
CKG6
CKG7
CKG8
CKG9
CKG10
CKG11
B202 (G)
1 ØR
2 ØH2
3 ØH1
4 SUB
5 15V
6 OUT
7 PT
8 ØV1
9 ØV2
10 ØV3
11 ØV4
12 PW
R201 1M
L202 15u
D203 MA110
C205 6V10
Q203 2SD1819 (-8VH SET)
R202 33K
R272 39K
R203 18K
R273 10K
L214 VLQ0555
ØV1 VM13 ØV2 VL OSUB
VH ØV3 ØV4 VM24 VHH
C207 1
Q219 2SB1218
D205 MA728
R268 15K
R267 33K
C206 1
D204 MA110
R204 1M
CAM 18V
C268 0.1
VLQ0555 L215
R290 220
22K
CAM -8V
L203 15u
C251 35V1.5
R223 1M
C212 35V2.2
C211 16V3.3
C210 35V1.5
C209 16V3.3
Q202 2SD1819 (BUFFER)
R277 VRE0071E823
R278 VRE0071E123
R279 5600
C266 0.01
L204 15u
CL209
CL210
CL211
B201 (H)
TO PROCESS / Page 11 (G-1)
32 AGND B301 - 32
31 AGND B301 - 31
30 CAM-8V B301 - 30
29 CAM 18V B301 - 29
28 CAM3.5V B301 - 28
27 ADCLK B301 - 27
26 VMD1 B301 - 26
25 VMD2 B301 - 25
24 VMD3 B301 - 24
23 FH2B B301 - 23
22 VD B301 - 22
21 HD B301 - 21
20 HCLR B301 - 20
19 CP2 B301 - 19
18 R-B B301 - 18
17 CPOB B301 - 17
16 FCK B301 - 16
15 VCTRL B301 - 15
14 AGC-CONT B301 - 14
13 OBCONT B301 - 13
12 ADOUT B301 - 12
11 VREF1 B301 - 11
10 VREF2 B301 - 10
9 VREF4 B301 - 9
8 LOW-CLIP B301 - 8
7 CDSOUT B301 - 7
6 G-CONT B301 - 6
5 AGCOUT B301 - 5
4 CAM9V B301 - 4
3 CAM5V B301 - 3
2 SUB B301 - 2
1 AECONT B301 - 1
CKH
C267 0.1
R270 10K
R271 22K
R269 6800
IC205 LM358DB (AMP)
C280 10P
L223 27µ
Q214 2SD1819
C234 6V10
C231 1
C242 0.1
C239 0.1
C240 0.1
C244 0.1
C236 0.1
R237 1K
R236 1800
Q206 XN4601 (BUFFER)
R258 2200
R220 100
R280 2200
R265 3300
Q211 2SB1218
R232 1K
R245 1M
R216 330K
C243 0.04
C233 0.1
CL201
CL212
4
5
6
7

B201-18 CAMERA REC
0.25Vp-p (H•RATE) GRAY SCALE

IC204-14 CAMERA REC
3.6Vp-p (H•RATE) GRAY SCALE

IC204-15 CAMERA REC
1.5Vp-p (H•RATE) GRAY SCALE

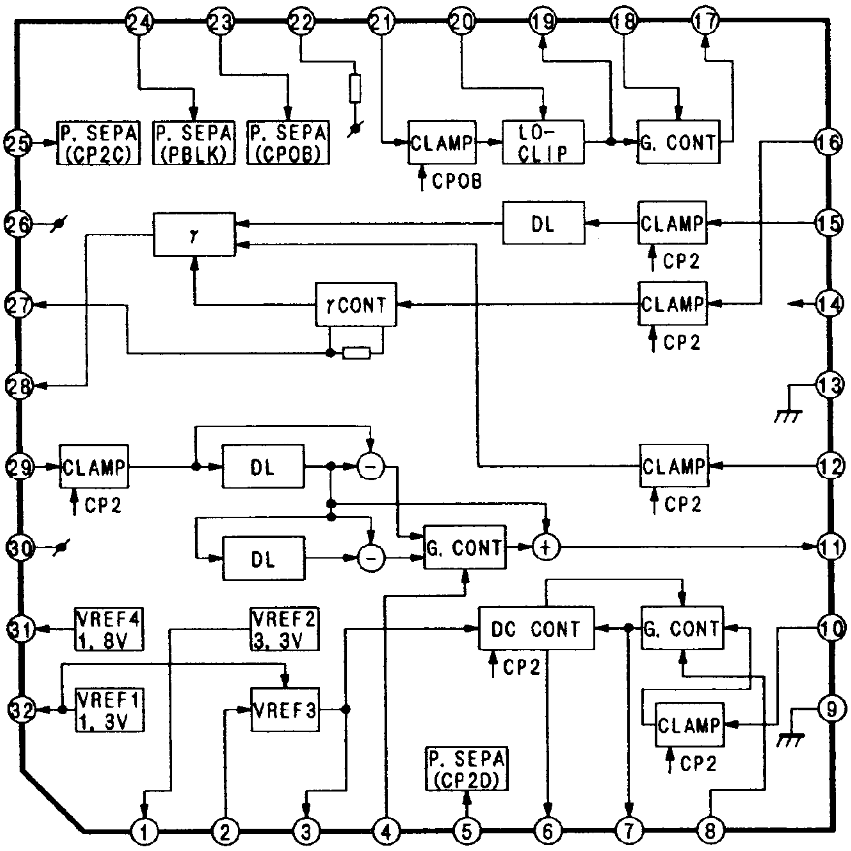
B201-7 CAMERA REC
0.2Vp-p (H•RATE) GRAY SCALE


TO SENSOR
B291
B202-1 CAMERA REC
8.4Vp-p (H•RATE) GRAY SCALE
D291
MA153
ØR 1
ØH2 2
ØH1 3
SUB 4
15V 5
OUT 6
PT 7
ØV1 8
ØV2 9
ØV3 10
ØV4 11
PW 12
to CCD
16 PW
15 ØV4
14 ØV3
13 ØV2
12 ØV1
11 PT
10 SUB
9 15
8 ØH1
7 ØH2
6 OG
5 LG
4 VO
3 RD
2 ØR
1 OD
C295
0.1
15.3
Q291
2SC2295 (BUFFER)
C293
0.047
C292
35V2.2
10.0
9.5
R291
56
C294
0.047
R292
4700
CS GND
CCD UNIT (VEK6071)
B202-3 CAMERA REC
15.1Vp-p (H•RATE) GRAY SCALE
B202-2 CAMERA REC
15.1Vp-p (H•RATE) GRAY SCALE
B202-4 CAMERA REC
7.0VDC (H•RATE) GRAY SCALE
B202-6 CAMERA REC
0.8Vp-p (H•RATE) GRAY SCALE
B202-7 CAMERA REC
−8.0VDC
B202-8, 9 CAMERA REC
7.0Vp-p (H•RATE) GRAY SCALE
B202-10, 11 CAMERA REC
7.0Vp-p (H•RATE) GRAY SCALE
S / Page: 11, (G-1)
B301-32
B301-31 CKH31
B301-30
B301-29
B301-28
B301-27 CKH27
B301-26 CKH26
B301-25 CKH25
B301-24 CKH24
B301-23 CKH23
B301-22 CKH22
B301-21 CKH21
B301-20 CKH20
B301-19 CKH19
B301-18 CKH18
B301-17 CKH17
B301-16 CKH16
B301-15 CKH15
B301-14 CKH14
B301-13 CKH13
B301-12
B301-11 CKH11
B301-10 CKH10
B301-9 CKH9
B301-8 CKH8
B301-7 CKH7
B301-6 CKH6
B301-5 CKH5
B301-4
B301-3 CKH3
B301-2 CKH2
B301-1 CKH1

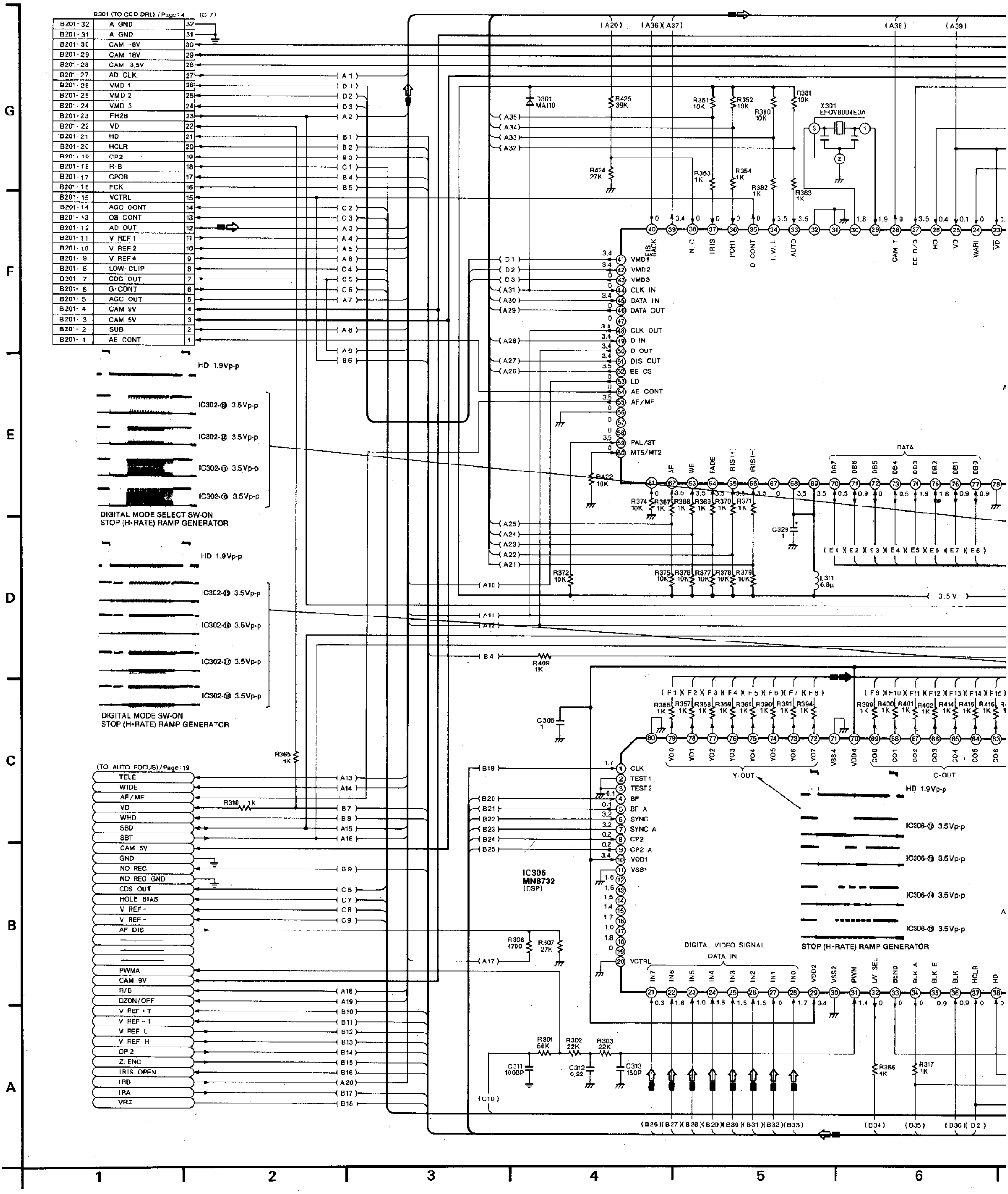
NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE WITH AIM THE CAMERA AT THE LOGARITHMIC GRAY SCALE CHART.

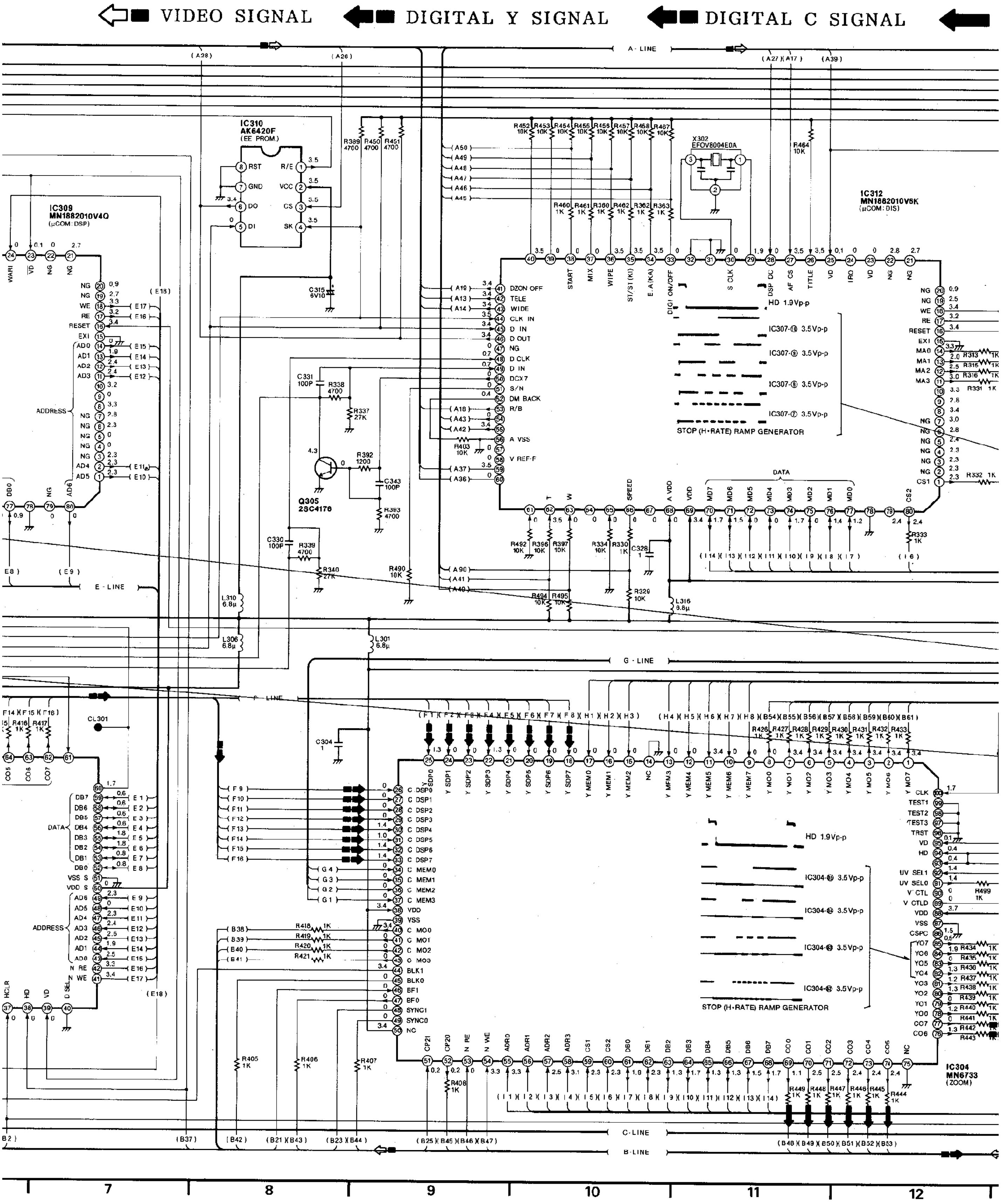
NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

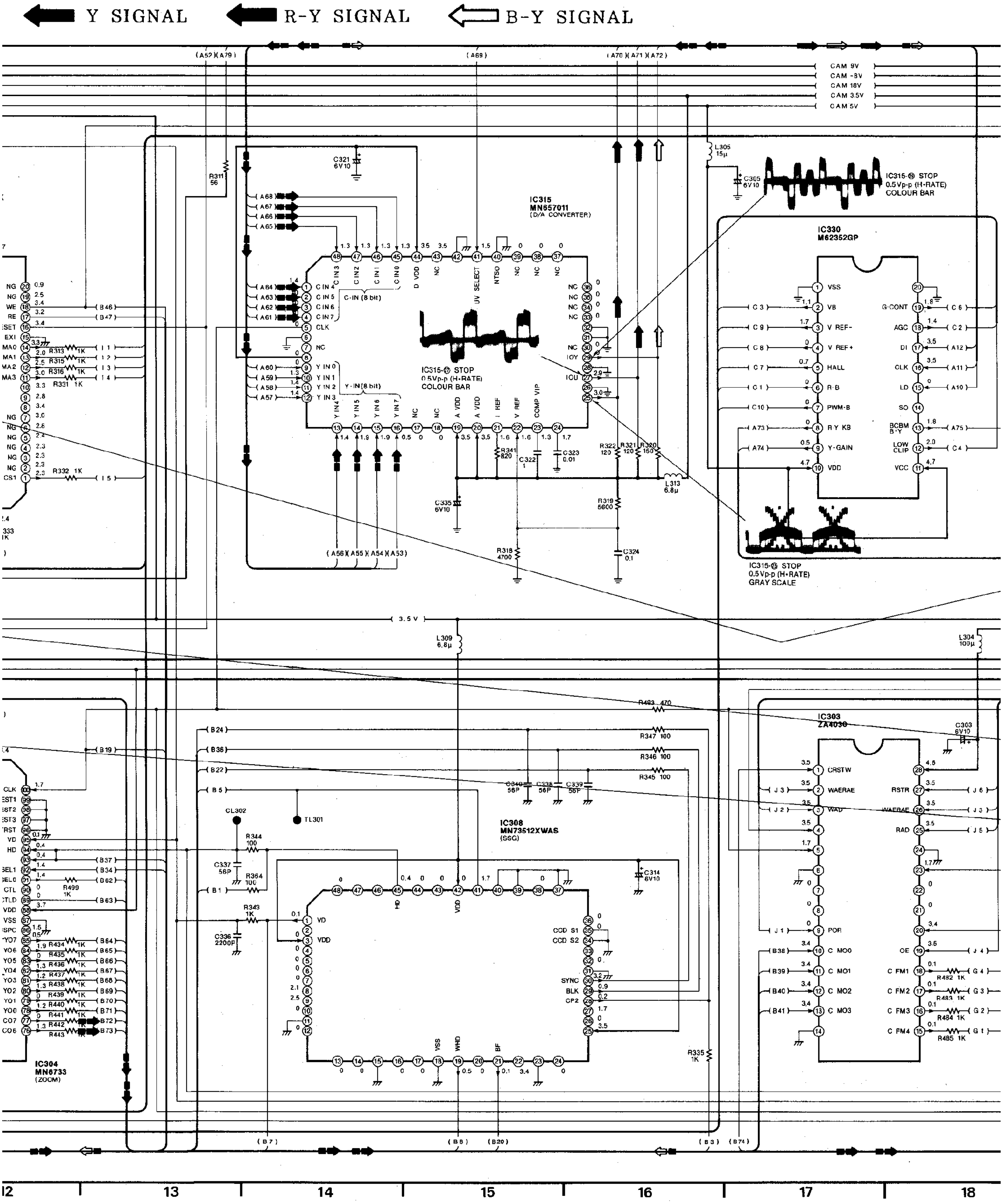
IC204
AN2033FAP
AN2032FAP

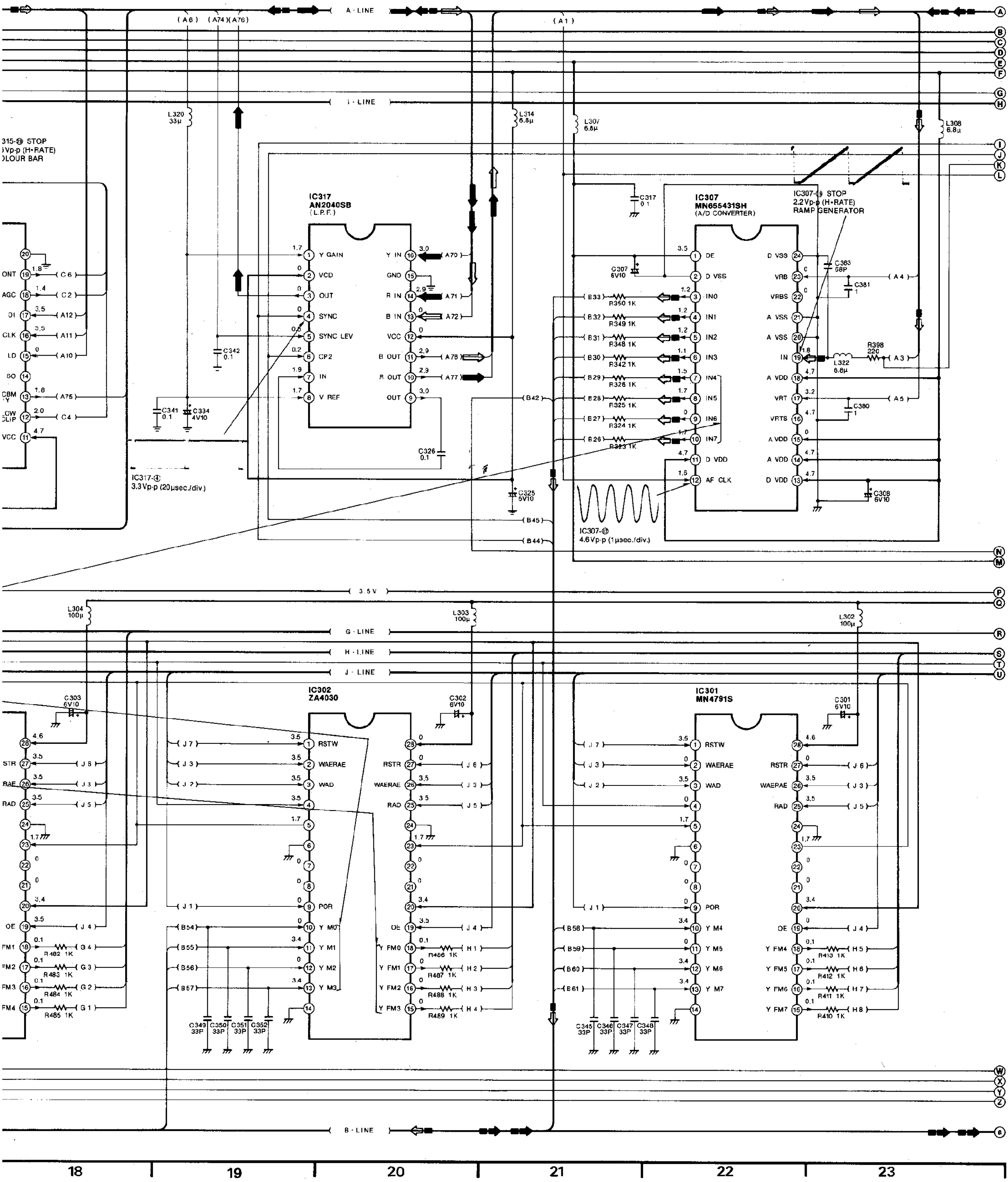

24
23
22
21
20
19
18
17
25
P. SEPA (CP2C)
P. SEPA (PBLK)
P. SEPA (CPOB)
CLAMP
CPOB
LO-CLIP
G. CONT
16
26
γ
DL
CLAMP
CP2
15
27
γCONT
CLAMP
CP2
14
28
13
29
CLAMP
CP2
DL
−
CLAMP
CP2
12
30
DL
−
G. CONT
+
11
31
VREF4 1. 8V
VREF2 3. 3V
DC CONT
CP2
G. CONT
10
32
VREF1 1. 3V
VREF3
CLAMP
CP2
9
P. SEPA (CP2D)
1
2
3
4
5
6
7
8

6. PROCESS & CAMERA OPERATION SCHEMATIC DIAGRAM


B301 (TO CCD DRI.) / Page: 4 (C-7)
B201-32 A GND 32
B201-31 A GND 31
B201-30 CAM -8V 30
B201-29 CAM 18V 29
B201-28 CAM 3.5V 28
B201-27 AD CLK 27
B201-26 VMD 1 26
B201-25 VMD 2 25
B201-24 VMD 3 24
B201-23 FH2B 23
B201-22 VD 22
B201-21 HD 21
B201-20 HCLR 20
B201-19 CP2 19
B201-18 H-B 18
B201-17 CPOB 17
B201-16 FCK 16
B201-15 VCTRL 15
B201-14 AGC CONT 14
B201-13 OB CONT 13
B201-12 AD OUT 12
B201-11 V REF 1 11
B201-10 V REF 2 10
B201-9 V REF 4 9
B201-8 LOW-CLIP 8
B201-7 CDS OUT 7
B201-6 G-CONT 6
B201-5 AGC OUT 5
B201-4 CAM 9V 4
B201-3 CAM 5V 3
B201-2 SUB 2
B201-1 AE CONT 1
HD 1.9Vp-p
IC302-⑱ 3.5Vp-p
IC302-⑲ 3.5Vp-p
IC302-⑪ 3.5Vp-p
IC302-⑩ 3.5Vp-p
DIGITAL MODE SELECT SW-ON
STOP (H-RATE) RAMP GENERATOR
HD 1.9Vp-p
IC302-⑬ 3.5Vp-p
IC302-⑭ 3.5Vp-p
IC302-⑰ 3.5Vp-p
IC302-⑯ 3.5Vp-p
DIGITAL MODE SW-ON
STOP (H-RATE) RAMP GENERATOR
(TO AUTO FOCUS) / Page: 19
TELE
WIDE
AF/MF
VD
WHD
SBD
SBT
CAM 5V
GND
NO REG
NO REG GND
CDS OUT
HOLE BIAS
V REF +
V REF -
AF DIS
PWMA
CAM 9V
R/B
DZON/OFF
V REF + T
V REF - T
V REF L
V REF H
OP 2
Z. ENC
IRIS OPEN
IRB
IRA
VRZ
R365 1K
R310 1K
D301 MA110
R425 39K
R424 27K
R351 10K
R352 10K
R380 10K
R381 10K
R353 1K
R354 1K
R382 1K
R383 1K
X301 EFOV8004E0A
R422 10K
R374 10K
R367 1K
R368 1K
R369 1K
R370 1K
R371 1K
C329 1
R372 10K
R375 10K
R376 10K
R377 10K
R378 10K
R379 10K
L311 6.8μ
3.5V
R409 1K
C308 1
IRIS BACK
N.C
IRIS
PORT
D CONT
T.W.L
AUTO
CAM T
EE R/D
HD
VD
WARI
VD
VMD1
VMD2
VMD3
CLK IN
DATA IN
DATA OUT
CLK OUT
D IN
D OUT
DIS CUT
EE CS
LD
AE CONT
AF/MF
PAL/ST
MT5/MT2
AF
WB
FADE
IRIS (+)
IRIS (−)
DATA
DB7
DB6
DB5
DB4
DB3
DB2
DB1
DB0
R355 1K
R357 1K
R358 1K
R359 1K
R361 1K
R390 1K
R391 1K
R394 1K
R399 1K
R400 1K
R401 1K
R402 1K
R414 1K
R415 1K
R416 1K
YO0
YO1
YO2
YO3
YO4
YO5
YO6
YO7
VSS4
VDD4
CO0
CO1
CO2
CO3
CO4
CO5
CO6
Y-OUT
C-OUT
CLK
TEST1
TEST2
BF
BF A
SYNC
SYNC A
CP2
CP2 A
VDD1
VSS1
VCTRL
IC306
MN8732
(DSP)
HD 1.9Vp-p
IC306-㊱ 3.5Vp-p
IC306-㊲ 3.5Vp-p
IC306-㉞ 3.5Vp-p
IC306-㉟ 3.5Vp-p
STOP (H-RATE) RAMP GENERATOR
DIGITAL VIDEO SIGNAL
DATA IN
IN7
IN6
IN5
IN4
IN3
IN2
IN1
IN0
VDD2
VSS2
PWM
UV SEL
BEND
BLK A
BLK E
BLK
HCLR
HD
R306 4700
R307 27K
R301 56K
R302 22K
R303 22K
C311 1000P
C312 0.22
C313 150P
R366 1K
R317 1K
G
F
E
D
C
B
A
1
2
3
4
5
6


VIDEO SIGNAL
DIGITAL Y SIGNAL
DIGITAL C SIGNAL
A - LINE
E - LINE
G - LINE
F - LINE
C - LINE
B - LINE
IC310
AK6420F
(EE PROM.)
RST
GND
DO
DI
R/E
VCC
CS
SK
IC309
MN1882010V4Q
(µCOM: DSP)
ADDRESS
DATA
IC312
MN1882010V6K
(µCOM: DIS)
X302
EFOV8004E0A
Q305
2SC4176
DZON OFF
TELE
WIDE
CLK IN
D IN
D OUT
D CLK
DCX7
S/N
DM BACK
R/B
A VSS
V REF-F
START
MIX
WIPE
ST/ST(KI)
E.A(KA)
DIGI ON/OFF
S CLK
DSP DC
AF CS
TITLE
HD 1.9Vp-p
IC307-⑩ 3.5Vp-p
IC307-⑨ 3.5Vp-p
IC307-⑧ 3.5Vp-p
IC307-⑦ 3.5Vp-p
STOP (H-RATE) RAMP GENERATOR
IC304
MN6733
(ZOOM)
HD 1.9Vp-p
IC304-⑲ 3.5Vp-p
IC304-⑳ 3.5Vp-p
IC304-㉑ 3.5Vp-p
IC304-㉒ 3.5Vp-p
STOP (H-RATE) RAMP GENERATOR
CL301
L310 6.8µ
L306 6.8µ
L301 6.8µ
L316 6.8µ
C315 6V10
7
8
9
10
11
12


Y SIGNAL
R-Y SIGNAL
B-Y SIGNAL
CAM 9V
CAM -8V
CAM 18V
CAM 3.5V
CAM 5V
IC315
MN657011
(D/A CONVERTER)
C-IN (8 bit)
Y-IN (8 bit)
IC315-㉗ STOP
0.5Vp-p (H-RATE)
COLOUR BAR
IC315-㉙ STOP
0.5Vp-p (H-RATE)
COLOUR BAR
IC315-㉕ STOP
0.5Vp-p (H-RATE)
GRAY SCALE
IC330
M62352GP
IC303
ZA4030
IC308
MN73512XWAS
(SSG)
IC304
MN6733
(ZOOM)
3.5 V
L305 15µ
L309 6.8µ
L313 6.8µ
L304 100µ
C321 6V10
C305 6V10
C335 6V10
C314 6V10
C303 6V10
R311 56
R318 4700
R319 5600
R322 120
R321 120
R320 150
R341 820
R493 470
R347 100
R346 100
R345 100
R344 100
R364 100
R343 1K
R335 1K
C322 1
C323 0.01
C324 0.1
C340 56P
C338 56P
C339 56P
C337 56P
C336 2200P
CL302
TL301
12
13
14
15
16
17
18


A · LINE
I · LINE
3.5V
G · LINE
H · LINE
J · LINE
B · LINE
(A6) (A74) (A76)
(A1)
L320 33μ
L314 6.8μ
L307 6.8μ
L308 6.8μ
315-⑬ STOP
Vp-p (H·RATE)
OLOUR BAR
IC317
AN2040SB
(L.P.F.)
Y GAIN
VCD
OUT
SYNC
SYNC LEV
CP2
IN
V REF
Y IN
GND
R IN
B IN
VCC
B OUT
R OUT
OUT
C342 0.1
C341 0.1
C334 4V10
C326 0.1
C325 6V10
IC317-④
3.3Vp-p (20μsec./div.)
C317 0.1
C307 6V10
IC307
MN655431SH
(A/D CONVERTER)
IC307-⑲ STOP
2.2Vp-p (H·RATE)
RAMP GENERATOR
OE
D VSS
IN0
IN1
IN2
IN3
IN4
IN5
IN6
IN7
D VDD
AF CLK
D VSS
VRB
VRBS
A VSS
A VSS
IN
A VDD
VRT
VRTS
A VDD
A VDD
D VDD
C363 68P
C381 1
C380 1
C308 6V10
R398 220
L322 6.8μ
R350 1K
R349 1K
R348 1K
R342 1K
R326 1K
R325 1K
R324 1K
R323 1K
IC307-⑫
4.6Vp-p (1μsec./div.)
L304 100μ
L303 100μ
L302 100μ
C303 6V10
C302 6V10
C301 6V10
IC302
ZA4030
IC301
MN4791S
RSTW
WAERAE
WAD
POR
Y M0
Y M1
Y M2
Y M3
Y M4
Y M5
Y M6
Y M7
RSTR
WAERAE
RAD
OE
Y FM0
Y FM1
Y FM2
Y FM3
Y FM4
Y FM5
Y FM6
Y FM7
R482 1K
R483 1K
R484 1K
R485 1K
R486 1K
R487 1K
R488 1K
R489 1K
R413 1K
R412 1K
R411 1K
R410 1K
C349 33P
C350 33P
C351 33P
C352 33P
C345 33P
C346 33P
C347 33P
C348 33P
ONT
AGC
DI
CLK
LD
SO
CBM
LOW CLIP
VCC
STR
RAE
RAD
OE
FM1
FM2
FM3
FM4
Ⓐ Ⓑ Ⓒ Ⓓ Ⓔ Ⓕ Ⓖ Ⓗ Ⓘ Ⓙ Ⓚ Ⓛ Ⓝ Ⓜ Ⓟ Ⓠ Ⓡ Ⓢ Ⓣ Ⓤ Ⓦ Ⓧ Ⓨ Ⓩ ⓐ
18
19
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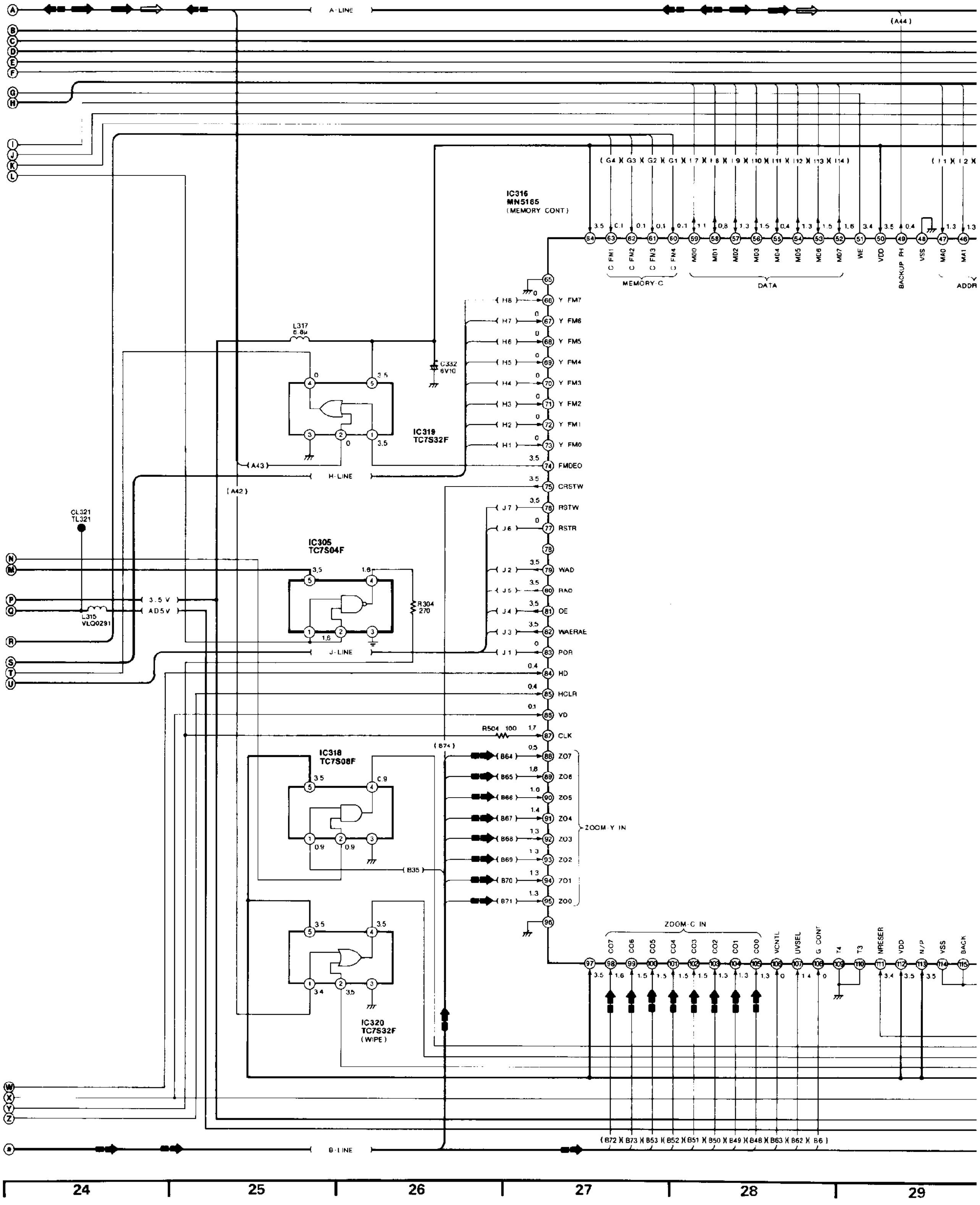
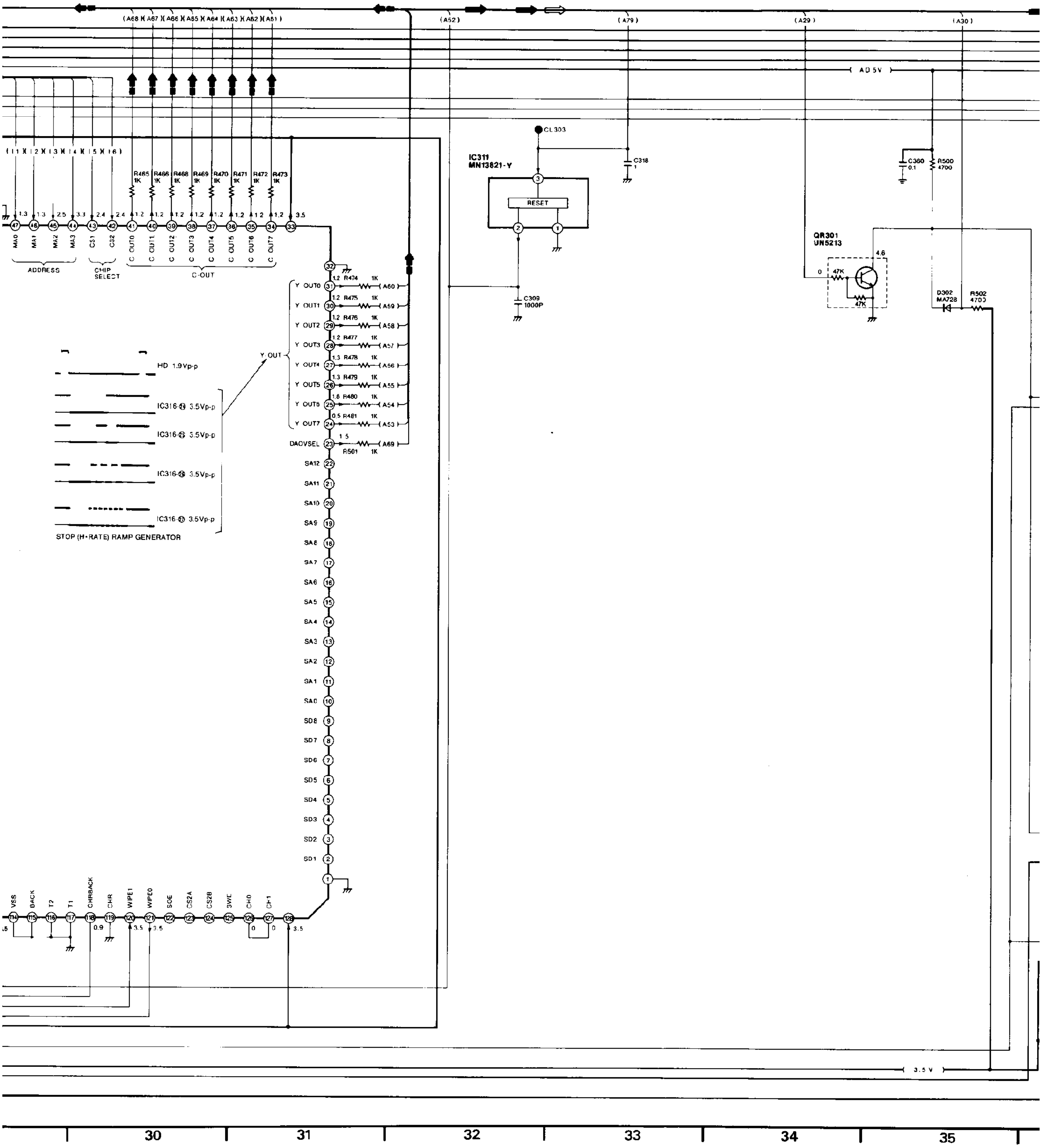
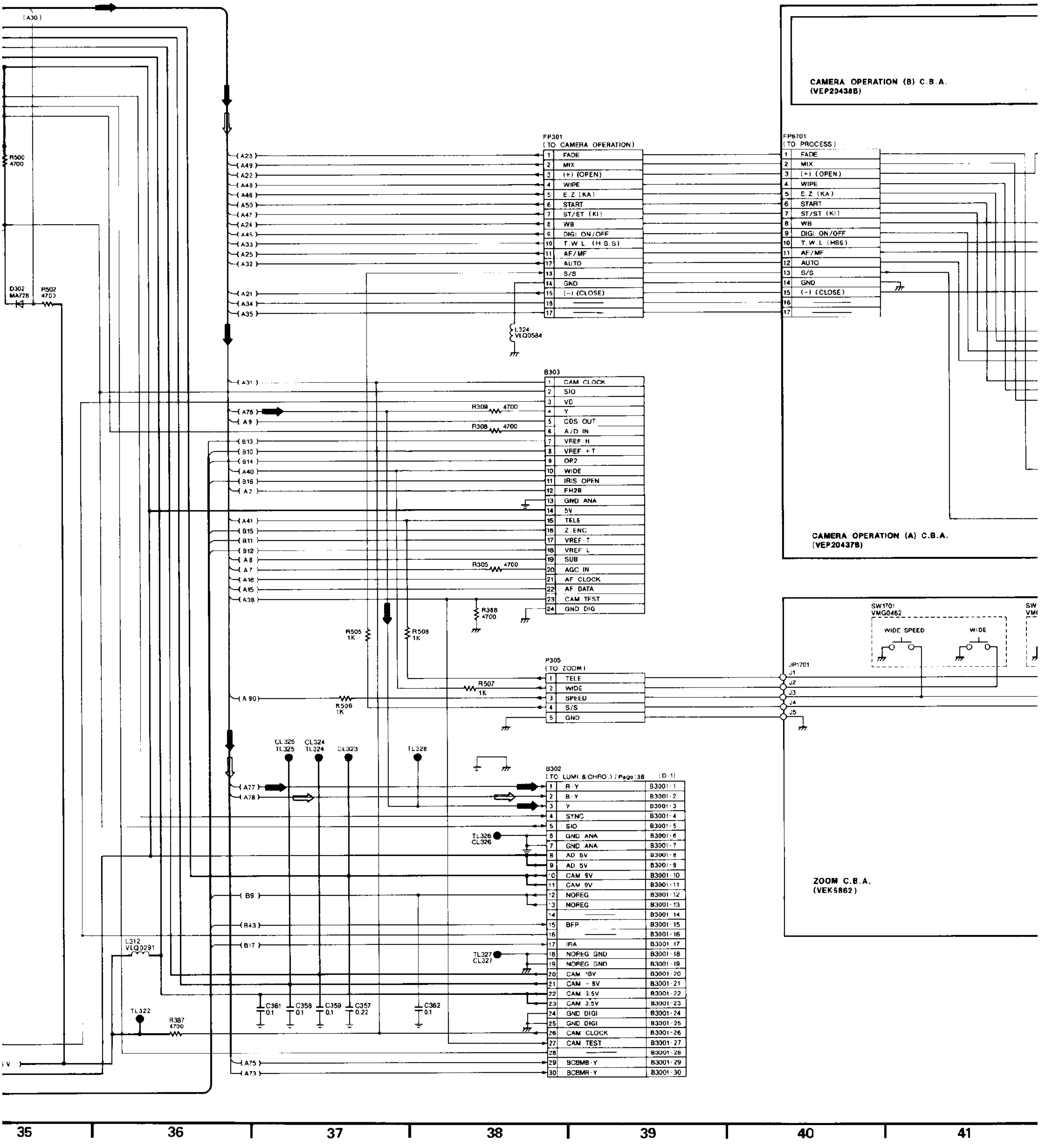
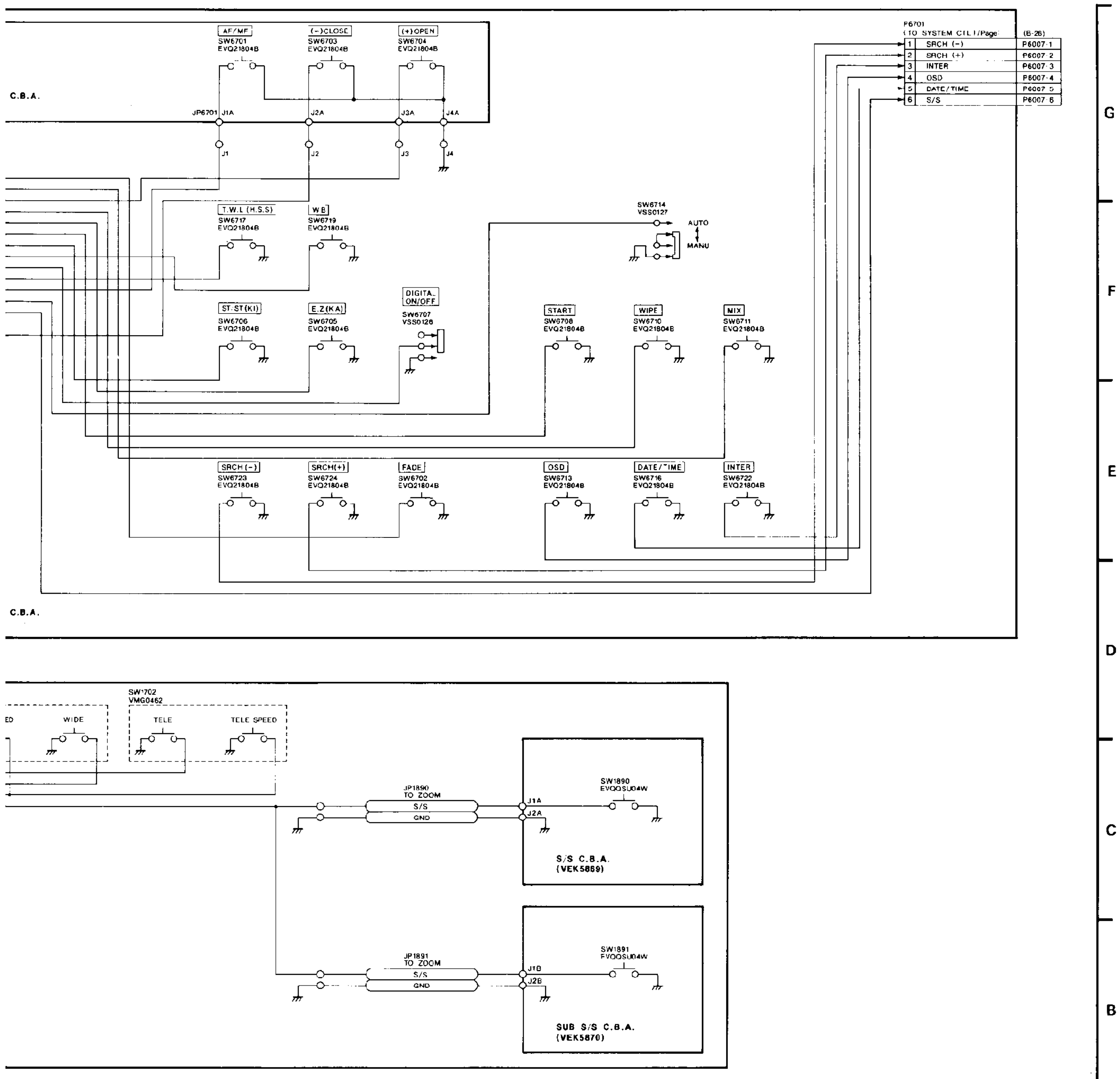
21
22
23


A-LINE
H-LINE
J-LINE
B-LINE
(A44)
(A43)
(A42)
IC316
MN5165
(MEMORY CONT)
(G4)(G3)(G2)(G1)(I 7)(I 8)(I 9)(I 10)(I 11)(I 12)(I 13)(I 14)
(I 1)(I 2)
C FM1
C FM2
C FM3
C FM4
MEMORY-C
MD0
MD1
MD2
MD3
MD4
MD5
MD6
MD7
DATA
WE
VDD
BACKUP PH
VSS
MA0
MA1
ADDR
Y FM7
Y FM6
Y FM5
Y FM4
Y FM3
Y FM2
Y FM1
Y FM0
FMDEO
CRSTW
RSTW
RSTR
WAD
RAD
OE
WAERAE
POR
HD
HCLR
VD
CLK
ZO7
ZO6
ZO5
ZO4
ZO3
ZO2
ZO1
ZO0
ZOOM-Y IN
ZOOM-C IN
CO7
CO6
CO5
CO4
CO3
CO2
CO1
CO0
VCNTL
UVSEL
G CONT
T4
T3
NRESER
VDD
N/P
VSS
BACK
L317
6.8μ
C332
6V10
IC319
TC7S32F
IC305
TC7S04F
R304
270
CL321
TL321
L315
VLQ0291
3.5 V
AD5 V
R504 100
(B74)
IC318
TC7S08F
(B35)
IC320
TC7S32F
(WIPE)
(B64)
(B65)
(B66)
(B67)
(B68)
(B69)
(B70)
(B71)
(H8)
(H7)
(H6)
(H5)
(H4)
(H3)
(H2)
(H1)
(J 7)
(J 6)
(J 2)
(J 5)
(J 4)
(J 3)
(J 1)
(B72)(B73)(B53)(B52)(B51)(B50)(B49)(B48)(B63)(B62)(B6)
A
B
C
D
E
F
G
H
I
J
K
L
N
M
P
Q
R
S
T
U
W
X
Y
Z
a
24
25
26
27
28
29



(A68)
(A67)
(A66)
(A65)
(A64)
(A63)
(A62)
(A61)
(A52)
(A79)
(A29)
(A30)
AD 5V
(1)
(2)
(3)
(4)
(5)
(6)
R465 1K
R466 1K
R468 1K
R469 1K
R470 1K
R471 1K
R472 1K
R473 1K
MA0
MA1
MA2
MA3
CS1
CS2
C OUT0
C OUT1
C OUT2
C OUT3
C OUT4
C OUT5
C OUT6
C OUT7
ADDRESS
CHIP SELECT
C-OUT
CL303
IC311
MN13821-Y
RESET
C318 1
C309 1000P
C300 0.1
R500 4700
QR301
UN5213
47K
47K
4.6
0
D302 MA728
R502 4700
Y OUT0
Y OUT1
Y OUT2
Y OUT3
Y OUT4
Y OUT5
Y OUT6
Y OUT7
Y OUT
R474 1K (A60)
R475 1K (A59)
R476 1K (A58)
R477 1K (A57)
R478 1K (A56)
R479 1K (A55)
R480 1K (A54)
R481 1K (A53)
DAOVSEL
R501 1K (A69)
SA12
SA11
SA10
SA9
SA8
SA7
SA6
SA5
SA4
SA3
SA2
SA1
SA0
SD8
SD7
SD6
SD5
SD4
SD3
SD2
SD1
HD 1.9Vp-p
IC316-㉔ 3.5Vp-p
IC316-㉕ 3.5Vp-p
IC316-㉖ 3.5Vp-p
IC316-㉗ 3.5Vp-p
STOP (H-RATE) RAMP GENERATOR
VSS
BACK
T2
T1
CHRBACK
CHR
WIPE1
WIPE0
SOE
CS2A
CS2B
SWE
CH0
CH1
0.9
3.5
3.5
3.5
3.5 V
30
31
32
33
34
35

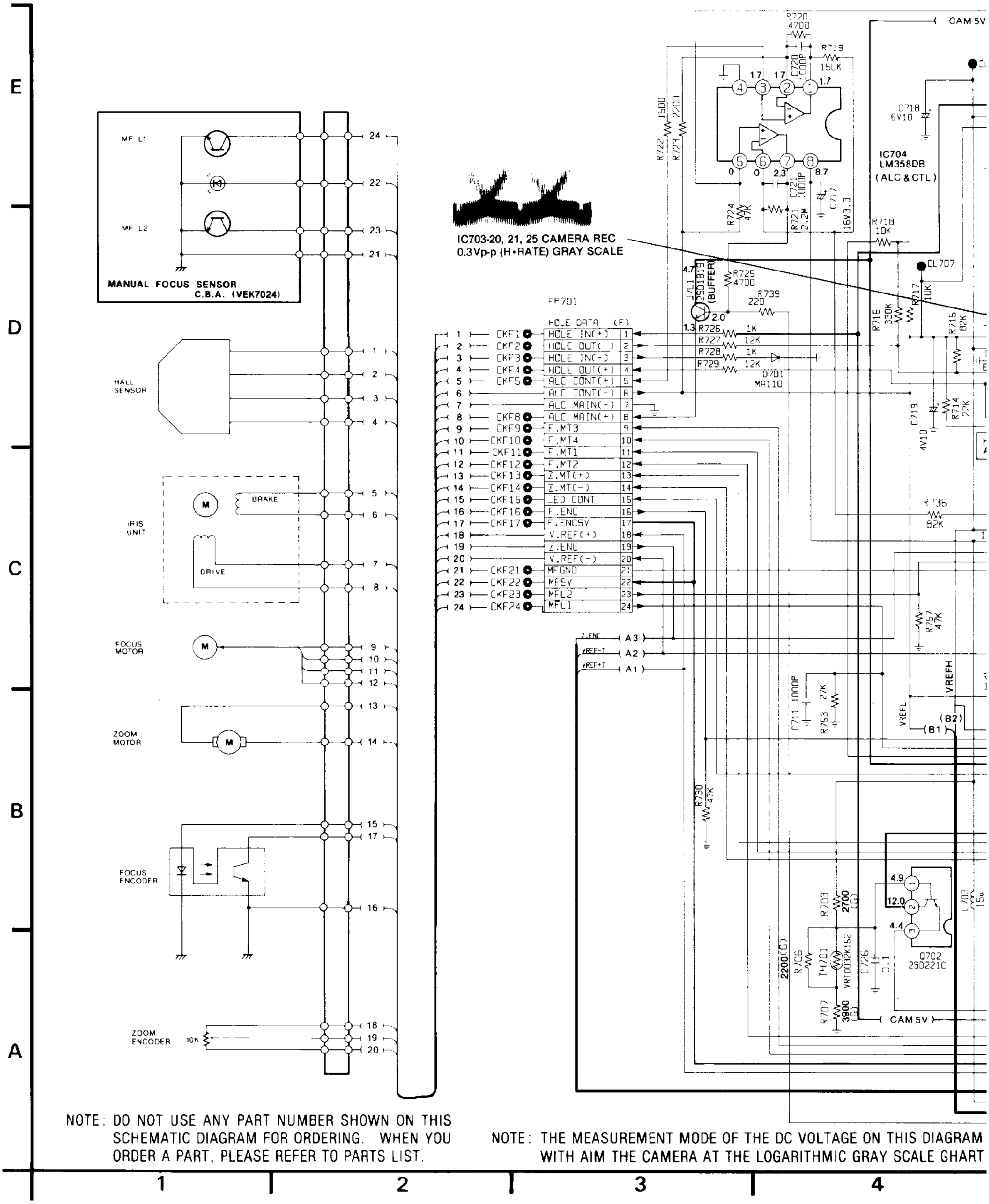

(A30)
R500
4700
D302
MA728
R502
4700
(A23)
(A49)
(A22)
(A48)
(A46)
(A50)
(A47)
(A24)
(A45)
(A33)
(A25)
(A32)
(A21)
(A34)
(A35)
FP301
(TO CAMERA OPERATION)
1 FADE
2 MIX
3 (+) (OPEN)
4 WIPE
5 E.Z (KA)
6 START
7 ST/ST (KI)
8 WB
9 DIGI ON/OFF
10 T.W.L. (H.S.S)
11 AF/MF
12 AUTO
13 S/S
14 GND
15 (−) (CLOSE)
16
17
L324
VLQ0584
CAMERA OPERATION (B) C.B.A.
(VEP20438B)
FP6701
(TO PROCESS)
1 FADE
2 MIX
3 (+) (OPEN)
4 WIPE
5 E.Z (KA)
6 START
7 ST/ST (KI)
8 WB
9 DIGI ON/OFF
10 T.W.L (HSS)
11 AF/MF
12 AUTO
13 S/S
14 GND
15 (−) (CLOSE)
16
17
CAMERA OPERATION (A) C.B.A.
(VEP20437B)
(A31)
(A76)
(A9)
(B13)
(B10)
(B14)
(A40)
(B16)
(A2)
(A41)
(B15)
(B11)
(B12)
(A8)
(A7)
(A16)
(A15)
(A38)
R309 4700
R308 4700
R305 4700
R388
4700
B303
1 CAM CLOCK
2 SIO
3 VD
4 Y
5 CDS OUT
6 A/D IN
7 VREF H
8 VREF +T
9 OP2
10 WIDE
11 IRIS OPEN
12 FH2B
13 GND ANA
14 5V
15 TELE
16 Z.ENC
17 VREF T
18 VREF L
19 SUB
20 AGC IN
21 AF CLOCK
22 AF DATA
23 CAM TEST
24 GND DIG
R505
1K
R508
1K
(A90)
R506
1K
R507
1K
P305
(TO ZOOM)
1 TELE
2 WIDE
3 SPEED
4 S/S
5 GND
JP1701
J1
J2
J3
J4
J5
SW1701
VMG0462
WIDE SPEED
WIDE
ZOOM C.B.A.
(VEK5862)
CL325
TL325
CL324
TL324
CL323
TL328
(A77)
(A78)
(B9)
(B43)
(B17)
TL326
CL326
TL327
CL327
L312
VLQ0291
TL322
R387
4700
C361
0.1
C358
0.1
C359
0.1
C357
0.22
C362
0.1
(A75)
(A73)
B302
(TO LUMI. & CHRO.) / Page:38
(D-1)
1 R-Y B3001-1
2 B-Y B3001-2
3 Y B3001-3
4 SYNC B3001-4
5 SIO B3001-5
6 GND ANA B3001-6
7 GND ANA B3001-7
8 AD 5V B3001-8
9 AD 5V B3001-9
10 CAM 9V B3001-10
11 CAM 9V B3001-11
12 NOREG B3001-12
13 NOREG B3001-13
14 B3001-14
15 BFP B3001-15
16 B3001-16
17 IRA B3001-17
18 NOREG GND B3001-18
19 NOREG GND B3001-19
20 CAM 18V B3001-20
21 CAM −8V B3001-21
22 CAM 3.5V B3001-22
23 CAM 3.5V B3001-23
24 GND DIGI B3001-24
25 GND DIGI B3001-25
26 CAM CLOCK B3001-26
27 CAM TEST B3001-27
28 B3001-28
29 BCBMB-Y B3001-29
30 BCBMR-Y B3001-30
5V
35
36
37
38
39
40
41


C.B.A.
AF/MF
SW6701
EVQ21804B
(−)CLOSE
SW6703
EVQ21804B
(+)OPEN
SW6704
EVQ21804B
JP6701
J1A
J2A
J3A
J4A
J1
J2
J3
J4
P6701
(TO SYSTEM CTL)/Page:
(B-26)
1 SRCH (−) P6007-1
2 SRCH (+) P6007-2
3 INTER P6007-3
4 OSD P6007-4
5 DATE/TIME P6007-5
6 S/S P6007-6
T.W.L (H.S.S)
SW6717
EVQ21804B
WB
SW6719
EVQ21804B
SW6714
VSS0127
AUTO
MANU
ST.ST(KI)
SW6706
EVQ21804B
E.Z(KA)
SW6705
EVQ21804B
DIGITAL ON/OFF
SW6707
VSS0128
START
SW6708
EVQ21804B
WIPE
SW6710
EVQ21804B
MIX
SW6711
EVQ21804B
SRCH(−)
SW6723
EVQ21804B
SRCH(+)
SW6724
EVQ21804B
FADE
SW6702
EVQ21804B
OSD
SW6713
EVQ21804B
DATE/TIME
SW6716
EVQ21804B
INTER
SW6722
EVQ21804B
C.B.A.
SW1702
VMG0462
ED
WIDE
TELE
TELE SPEED
JP1890
TO ZOOM
S/S
GND
J1A
J2A
SW1890
EVQQSU04W
S/S C.B.A.
(VEK5869)
JP1891
TO ZOOM
S/S
GND
J1B
J2B
SW1891
EVQQSU04W
SUB S/S C.B.A.
(VEK5870)
G
F
E
D
C
B
A
41
42
43
44
45
46

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

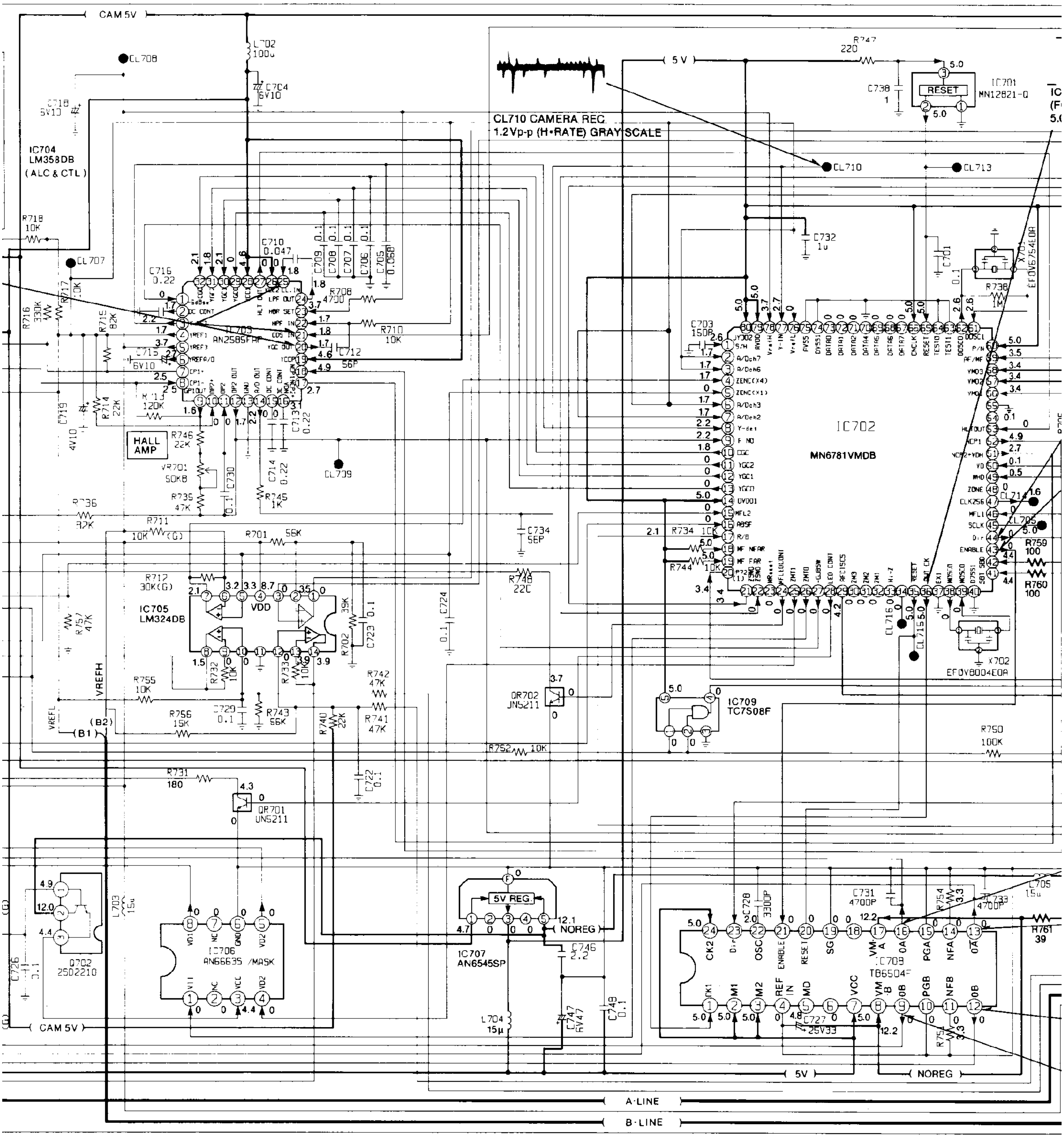
NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE WITH AIM THE CAMERA AT THE LOGARITHMIC GRAY SCALE CHART.

7. AUTO FOCUS SCHEMATIC DIAGRAM


E
D
C
B
A
1
2
3
4
MF L1
MF L2
MANUAL FOCUS SENSOR
C.B.A. (VEK7024)
HALL SENSOR
IRIS UNIT
BRAKE
DRIVE
FOCUS MOTOR
ZOOM MOTOR
FOCUS ENCODER
ZOOM ENCODER
10K
IC703-20, 21, 25 CAMERA REC
0.3Vp-p (H•RATE) GRAY SCALE
FP701
HOLE DATA (F)
HOLE INC(+)
HOLE OUT(-)
HOLE INC(-)
HOLE OUT(+)
ALC CONT(+)
ALC CONT(-)
ALC MAIN(-)
ALC MAIN(+)
F.MT3
F.MT4
F.MT1
F.MT2
Z.MT(+)
Z.MT(-)
LED CONT
F.ENC
F.ENC5V
V.REF(+)
Z.ENL
V.REF(-)
MFGND
MF5V
MFL2
MFL1
CKF1
CKF2
CKF3
CKF4
CKF5
CKF8
CKF9
CKF10
CKF11
CKF12
CKF13
CKF14
CKF15
CKF16
CKF17
CKF21
CKF22
CKF23
CKF24
Z.ENC
VREF-T
VREF+T
A3
A2
A1
CAM 5V
R720 4700
R719 150K
C720 1000P
R722 1500
R723 2200
IC704 LM358DB (ALC&CTL)
C718 6V10
R724 47K
C721 1000P
R721 2.2M
C717 16V3.3
R718 10K
CL707
Q701 2SD1819 (BUFFER)
R725 4700
R739 220
R726 1K
R727 12K
R728 1K
R729 12K
D701 MA110
R716 330K
R717 10K
R715 82K
C719 4V10
R714 22K
R736 82K
R757 47K
VREFH
VREFL
(B1)
(B2)
C711 1000P
R753 27K
R730 47K
R703 2700 (G)
R706 2200 (G)
TH701 VRT0032K152
C726 0.1
R707 3900 (G)
Q702 2SD2210
L703 15µ
4.9
12.0
4.4
1.7
0
2.3
8.7
4.7
2.0
1.3

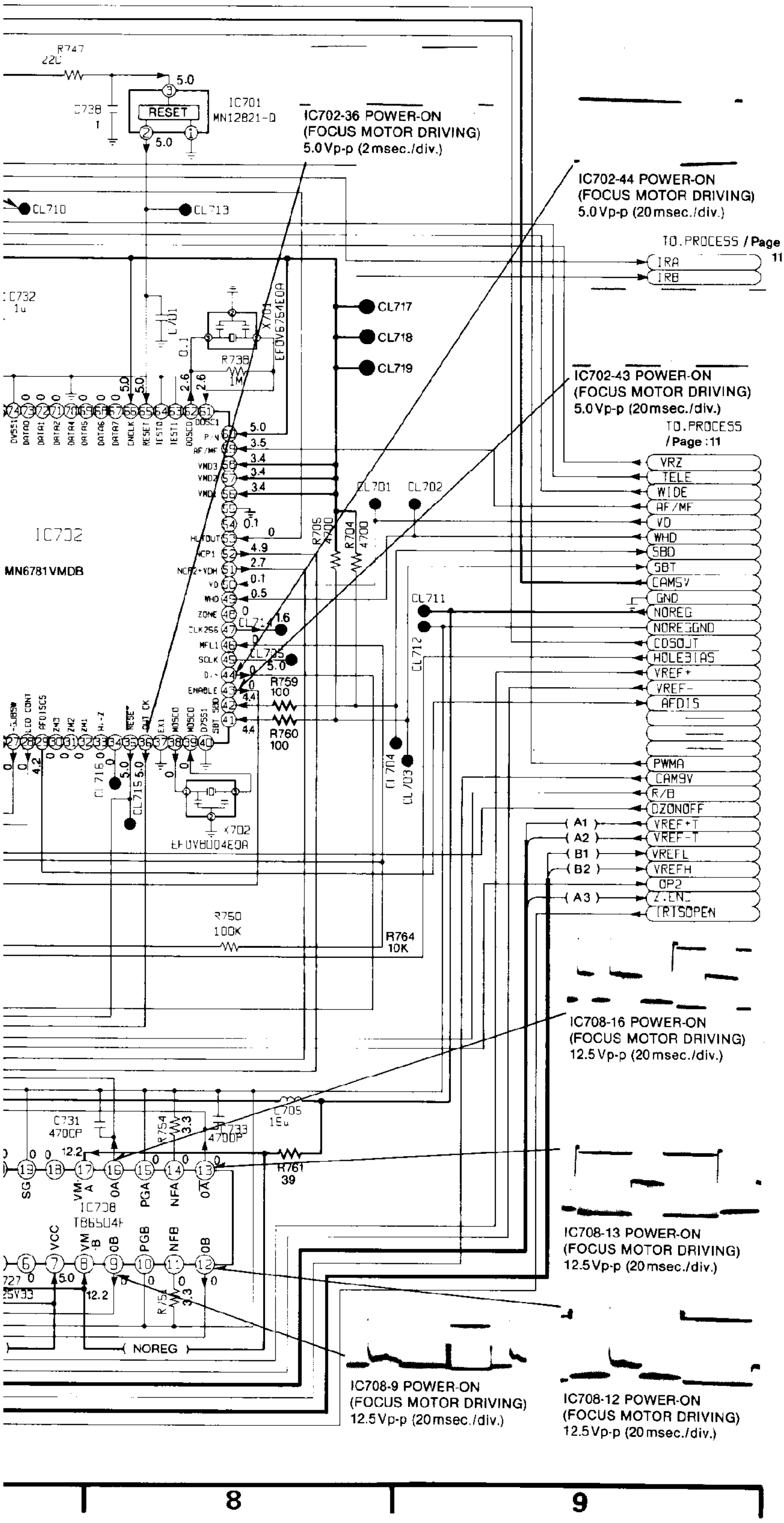
NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM WITH AIM THE CAMERA AT THE LOGARITHMIC GRAY SCALE GHART


CAM 5V
CL708
L702 100u
C704 6V10
C718 6V10
IC704 LM358DB (ALC & CTL)
R718 10K
CL707
C716 0.22
C710 0.047
C709 0.1
C708 0.1
C707 0.1
C706 0.1
C705 0.068
R708 4700
R710 10K
C712 56P
IC703 AN2585FHF
R716 330K
R717 10K
R715 82K
C715 6V10
R714 22K
R713 120K
C719 4V10
HALL AMP
R746 22K
VR701 50KB
C730 0.1
R735 47K
C714 0.22
C713 0.22
R745 1K
CL709
R736 82K
R711 10K (G)
R701 56K
R712 30K (G)
IC705 LM324DB
VDD
R757 47K
R702 39K
C723 0.1
R732 10K
R733 10K
VREFH
VREFL
R755 10K
R756 15K
C729 0.1
R743 56K
R742 47K
R741 47K
R740 22K
(B1)
(B2)
R731 180
QR701 UN5211
C722 0.1
C734 56P
R748 220
C724 0.1
QR702 UN5211
R752 10K
5V
CL710 CAMERA REC
1.2Vp-p (H•RATE) GRAY SCALE
CL710
CL713
R747 220
C738 1
RESET
IC701 MN12821-Q
C732 1u
C701 0.1
X701 EFOV6754E0A
R738 1M
C703 150P
IC702
MN6781VMDB
R734 10K
R744 10K
CL714
CL705
R759 100
R760 100
CL716
CL715
X702 EFOV8004E0A
IC709 TC7S08F
R750 100K
Q702 2SD2210
L703 15u
C726 0.1
IC706 AN6663S /MASK
VD1 NC GND VD2
VT1 NC VCC VD2
5V REG.
NOREG
IC707 AN6545SP
C746 2.2
L704 15µ
C747 6V47
C748 0.1
C728 3300P
C731 4700P
C733 4700P
R754 3.3
L705 15u
R761 39
CK2 Dir OSC ENABLE RESET SG VM-A 0A PGA NFA 0A
IC708 TB6504F
FK1 M1 M2 REF IN MD VCC VM-B 0B PGB NFB 0B
C727 25V33
R751 3.3
5V
NOREG
A-LINE
B-LINE

E ON THIS DIAGRAM IS STOP MODE
GRAY SCALE GHART.

4 5 6 7 8


R747
220
5.0
C738
1
RESET
IC701
MN12821-D
5.0
CL710
CL713
TO.PROCESS / Page : 11
IRA
IRB
C732
1u
L701
X701
EFOV6754E0A
R738
1M
CL717
CL718
CL719
IC702
MN6781VMDB
P/N
AF/MF
VMD3
VMD2
VMD1
HL/OUT
ACP1
NCR2+VDH
VD
WHD
ZONE
CLK256
MFL1
SCLK
ENABLE
5.0
3.5
3.4
3.4
3.4
0.1
0
4.9
2.7
0.1
0.5
1.6
5.0
4.4
4.4
CL714
CL705
R759
100
R760
100
R705
4700
R704
4700
CL701
CL702
CL711
CL712
CL704
CL703
CL716
CL715
X702
EFOV8004E0A
TO.PROCESS
/ Page : 11
VRZ
TELE
WIDE
AF/MF
VD
WHD
SBD
SBT
CAMSV
GND
NOREG
NOREGGND
CDSOUT
HOLEBIAS
VREF+
VREF-
AFDIS
PWMA
CAM9V
R/B
DZONOFF
A1
A2
B1
B2
A3
VREF+T
VREF-T
VREFL
VREFH
OP2
Z.EN
IRISOPEN
R750
100K
R764
10K
C731
4700P
C733
4700P
L705
15u
R754
3.3
R761
39
12.2
SG
VM A
OA
PGA
NFA
OA
IC708
TB6504F
VCC
VM B
OB
PGB
NFB
OB
5.0
12.2
R751
3.3
NOREG
8
9

IC702-36 POWER-ON
(FOCUS MOTOR DRIVING)
5.0Vp-p (2msec./div.)

IC702-44 POWER-ON
(FOCUS MOTOR DRIVING)
5.0Vp-p (20msec./div.)

IC702-43 POWER-ON
(FOCUS MOTOR DRIVING)
5.0Vp-p (20msec./div.)

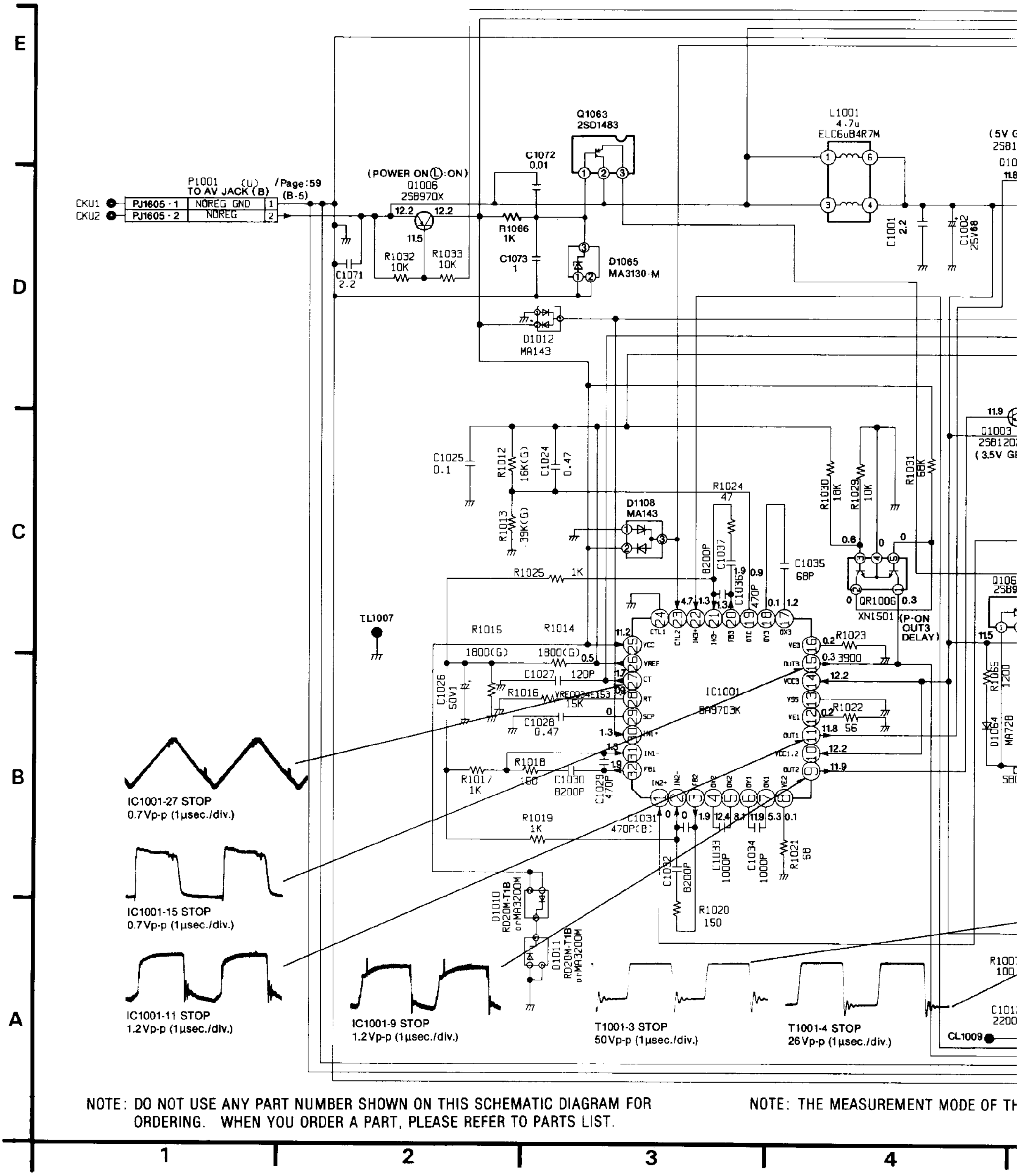
IC708-16 POWER-ON
(FOCUS MOTOR DRIVING)
12.5Vp-p (20msec./div.)

IC708-13 POWER-ON
(FOCUS MOTOR DRIVING)
12.5Vp-p (20msec./div.)

IC708-9 POWER-ON
(FOCUS MOTOR DRIVING)
12.5Vp-p (20msec./div.)

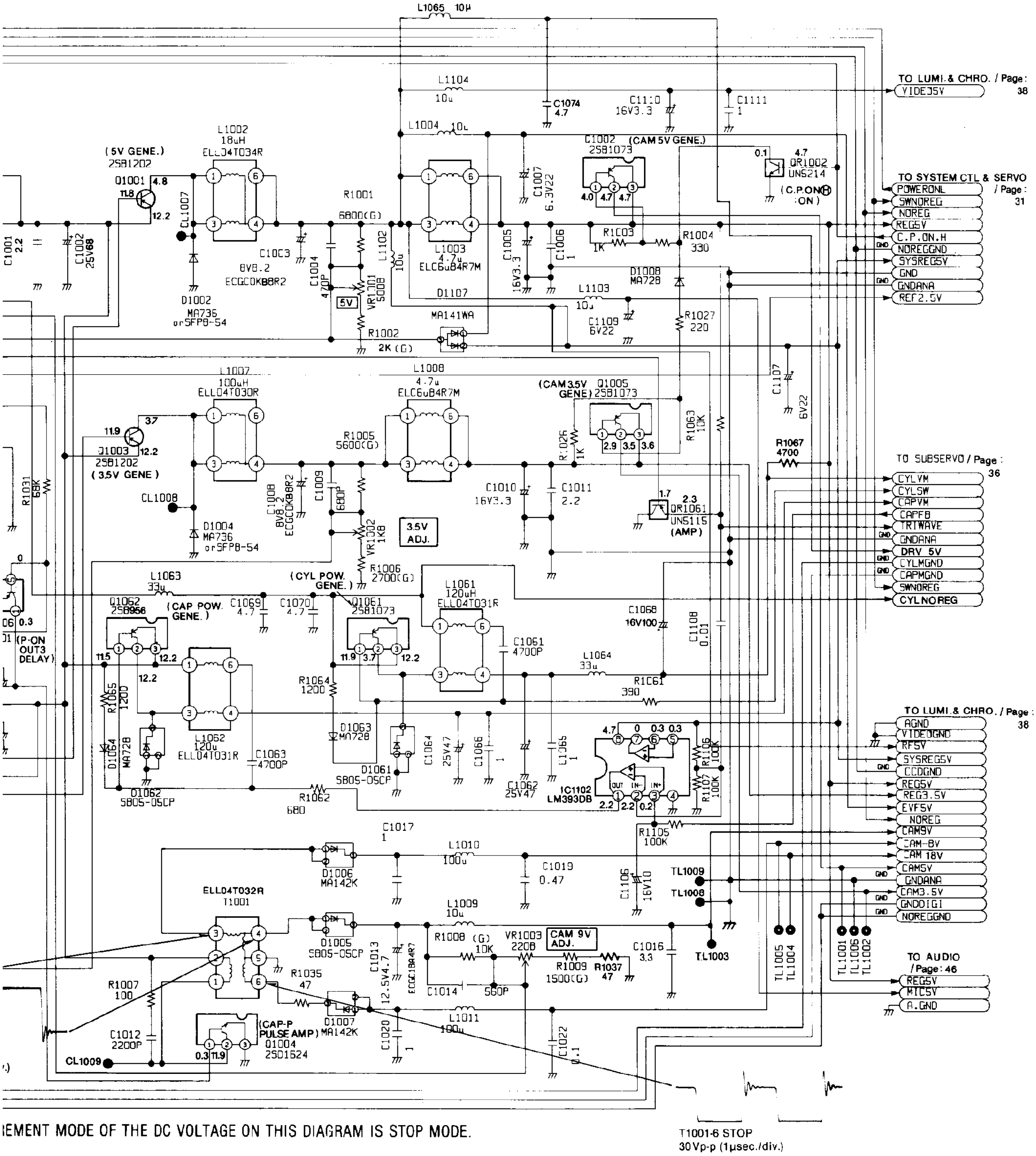
IC708-12 POWER-ON
(FOCUS MOTOR DRIVING)
12.5Vp-p (20msec./div.)

10. POWER SCHEMATIC DIAGRAM


E
D
C
B
A
1
2
3
4
CKU1
CKU2
P1001 (U) TO AV JACK (B)
/Page:59 (B-5)
PJ1605 - 1
PJ1605 - 2
NOREG GND
NOREG
C1071 2.2
(POWER ON(L):ON)
Q1006 2SB970X
12.2
12.2
11.5
R1032 10K
R1033 10K
R1066 1K
C1072 0.01
C1073 1
Q1063 2SD1483
D1065 MA3130-M
D1012 MA143
L1001 4.7u ELC6uB4R7M
C1001 2.2
C1002 25V68
(5V G
2SB1
Q10
11.8
C1025 0.1
R1012 16K(G)
C1024 0.47
R1013 39K(G)
D1108 MA143
R1024 47
8200P
C1037
C1036
470P
C1035 68P
R1025 1K
R1030 18K
R1029 10K
R1031 68K
QR1006
XN1501
(P-ON OUT3 DELAY)
11.9
Q1003 2SB120
(3.5V G
Q106 2SB9
TL1007
R1015
R1014
1800(G)
1800(G)
C1026 50V1
C1027 120P
R1016
15K
C1028 0.47
R1017 1K
R1018 160
C1030 8200P
C1029 470P
R1019 1K
C1031 470P(B)
IC1001 BA9703K
VCC
VREF
CT
RT
SCP
IN1+
IN1-
FB1
IN2+
IN2-
FB2
DT2
DK2
DY1
DK1
VE2
OUT2
VCC1.2
OUT1
VE1
VSS
VCC3
OUT3
VE3
DX3
DY3
DTC
FB3
IN3-
IN3+
CTL2
CTL1
R1023 3900
R1022 56
0.2
0.3
12.2
11.8
12.2
11.9
4.7
1.3
1.9
0.9
0.1
1.2
0.6
11.2
0.5
1.7
1.3
1.9
12.4
8.1
5.3
C1032 8200P
C1033 1000P
C1034 1000P
R1021 68
R1020 150
D1010 RD20M-T1B or MA3200M
D1011 RD20M-T1B or MA3200M
11.5
R1065 1200
D1064 MA728
R1001 100
C101 2200
CL1009
IC1001-27 STOP 0.7Vp-p (1µsec./div.)
IC1001-15 STOP 0.7Vp-p (1µsec./div.)
IC1001-11 STOP 1.2Vp-p (1µsec./div.)
IC1001-9 STOP 1.2Vp-p (1µsec./div.)
T1001-3 STOP 50Vp-p (1µsec./div.)
T1001-4 STOP 26Vp-p (1µsec./div.)

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

NOTE: THE MEASUREMENT MODE OF TH


L1065 10µ
L1104 10u
C1074 4.7
C11:0 16V3.3
C1111 1
TO LUMI.& CHRO. / Page: 38
VIDEO5V
L1004 10u
C1002 (CAM 5V GENE.) 2SB1073
0.1
4.7 QR1002 UN5214
(C.P.ON H :ON)
TO SYSTEM CTL & SERVO / Page: 31
POWERONL
SWNOREG
NOREG
REG5V
C.P.ON.H
NOREGGND
SYSREG5V
GND
GNDANA
REF2.5V
(5V GENE.) 2SB1202
Q1001 4.8 11.8 12.2
L1002 18uH ELL04T034R
CL1007
C1001 2.2
C1002 25V68
D1002 MA736 orSFPB-54
C1003 8V8.2 ECGC0KB8R2
R1001 6800(G)
C1004 470P
5V
VR1001 500B
R1002 2K(G)
L1102 10u
L1003 4.7u ELC6uB4R7M
D1107 MA141WA
C1005 16V3.3
C1006 1
C1007 6.3V22
R1C03 1K
R1004 330
D1008 MA728
L1103 10u
C1109 6V22
R1027 220
C1107 6V22
L1007 100uH ELL04T030R
L1008 4.7u ELC6uB4R7M
(CAM3.5V GENE) Q1005 2SB1073
11.9 3.7 Q1003 12.2 2SB1202 (3.5V GENE)
R1031 68K
CL1008
D1004 MA736 orSFPB-54
R1005 5600(G)
C1008 8V8.2 ECGC0KB8R2
C1009 680P
VR1002 1K8
3.5V ADJ.
R1006 2700(G)
C1010 16V3.3
C1011 2.2
R1026 1K
2.9 3.5 3.6
R1063 10K
1.7 2.3 QR1061 UN5115 (AMP)
R1067 4700
TO SUBSERVO / Page: 36
CYLVM
CYLSW
CAPVM
CAPFB
TRIWAVE
GNDANA
DRV 5V
CYLMGND
CAPMGND
SWNOREG
CYLNOREG
0
0.3
(P.ON OUT3 DELAY)
L1063 33u
Q1062 2SB956 (CAP POW. GENE.)
C1069 4.7
C1070 4.7
(CYL POW. GENE.)
Q1061 2SB1073
L1061 120uH ELL04T031R
C1061 4700P
C1068 16V100
C1108 0.01
11.5 12.2 12.2
11.9 3.7 12.2
R1065 1200
D1064 MA728
L1062 120u ELL04T031R
C1063 4700P
D1062 5B05-05CP
R1064 1200
D1063 MA728
D1061 5B05-05CP
C1064 25V47
C1066 1
C1062 25V47
C1065 1
L1064 33u
R1C61 390
R1062 680
4.7 0 0.3 0.3
OUT IN- IN+
2.2 2.2 0.2
IC1102 LM393DB
R1106 100K
R1107 100K
R1105 100K
TO LUMI.& CHRO. / Page: 38
AGND
VIDEOGND
RF5V
SYSREG5V
CCDGND
REG5V
REG3.5V
EVF5V
NOREG
CAM5V
CAM-8V
CAM 18V
CAM5V
GNDANA
CAM3.5V
GNDDIGI
NOREGGND
C1017 1
D1006 MA142K
L1010 100u
C1019 0.47
C1105 16V10
TL1009
TL1008
ELL04T032R T1001
D1005 5B05-05CP
L1009 10u
C1013 12.5V4.7
ECGC1B4R7
R1008 (G) 10K
VR1003 220B
CAM 9V ADJ.
R1009 1500(G)
R1037 47
C1016 3.3
TL1003
TL1005 TL1004
TL1001 TL1006 TL1002
TO AUDIO / Page: 46
REG5V
MIC5V
A.GND
R1007 100
R1035 47
C1014 560P
D1007 MA142K
(CAP-P PULSE AMP) Q1004 2SD1524
0.3 11.9
C1012 2200P
CL1009
C1020 1
L1011 100u
C1022 0.1
GND
T1001-6 STOP
30Vp-p (1µsec./div.)

ΙEMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

4 5 6 7 8

SYSTEM CONTROL & SERVO ICs DC VOLTAGE CHART

REF. NO.	IC6001																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STOP	0	0	0	0	0	0	0	0	12.2	12.2	0	0	0	0	0	0	0	0	0	0
REC/PLAY	0	0	0	0	0	0	0	0	12.1	12.1	0	0	0	0	0	0.1	0	0	0	0
F.F	0	0	0	0	0	0	0	0	12.0	12.1	0	0	0	0	0	0	0	0	0	0
REF. NO.	IC6001																			
MODE	21	22	23	24																
STOP	0	0	0	0																
REC/PLAY	0	0	0.1	0																
F.F	0	0	0	0																
REF. NO.	IC6002																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16				
STOP	4.6	0.1	4.7	4.7	4.7	1.7	1.7	0	0	0	0	0.1	0	0	4.3	3.8				
REC/PLAY	4.7	0.1	4.7	4.7	4.7	1.7	1.7	0	0	0	0	0	0	0	4.3	3.7				
F.F	4.7	0.1	4.7	4.7	4.7	1.7	1.7	0	0	0	0	0	0	0	4.3	3.8				
REF. NO.	IC6003																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14						
STOP	0	0.8	0	0	0.5	0.8	0	1.8	1.8	4.7	0	0	0	1.8						
REC/PLAY	0	0.8	0	0	0.5	0.8	0	1.8	1.8	4.7	0	0	0	1.8						
F.F	0	0.8	0	0	0.5	0.8	0	1.8	1.8	4.7	0	0	0	1.8						
REF. NO.	IC6004																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STOP	4.7	4.7	4.7	4.7	4.7	4.6	4.7	4.7	0	4.7	0	4.7	4.7	4.7	4.7	4.7	0	0	0	0
REC/PLAY	4.7	4.7	4.7	4.6	4.7	4.6	4.7	4.7	0	0	0	4.7	4.7	4.7	4.7	—	4.7	4.7	4.7	4.2
F.F	4.7	4.6	4.7	4.7	4.7	4.6	4.7	4.7	0	4.7	0	4.7	4.7	3.5	4.7	0	0	0	0	0
REF. NO.	IC6004																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
STOP	0	0	1.9	0	4.7	0	0	4.7	0.8	0	0	0	0.1	4.7	0	0	0	—	—	0
REC/PLAY	0	0	1.9	0	4.7	0	0	4.7	0.8	0	0	0	0.1	4.7	0	0	0	—	—	0
F.F	0	0	1.9	0	4.7	0	0	4.7	0.8	0	0	0	0.1	4.7	0	0	0	0.1	4.7	0
REF. NO.	IC6004																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
STOP	2.1	0.8	1.0	0	0	0.8	4.7	—	—	4.7	0	4.3	4.6	4.5	4.7	4.7	4.7	2.3	4.6	4.7
REC/PLAY	0	2.1	1.0	0	0	0.8	4.7	—	0.3	—	—	4.4	4.5	4.5	4.7	4.7	4.7	0	4.6	4.7
F.F	0	0.8	1.0	0	0	0.8	4.7	4.7	0	4.7	0	4.4	4.6	4.4	4.7	4.7	4.6	0	4.6	4.7
REF. NO.	IC6004																			
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
STOP	0	0	4.7	0	4.7	0	0	4.7	2.3	0	4.7	0	0	0	2.4	2.4	2.3	0	2.4	2.4
REC/PLAY	0	0	—	0	—	0	0	4.7	2.3	0	1.3	0	0	0	2.4	2.3	2.3	0	2.4	2.4
F.F	0	0	4.7	0	4.7	0	0	4.7	2.3	0	4.7	0	0	0	2.4	2.4	2.3	0	2.4	2.4
REF. NO.	IC6001																			
MODE	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
STOP	2.1	2.6	4.7	0	0	0	2.4	2.4	0	0	2.4	0	0	4.1	4.7	0	4.7	4.7	4.7	4.7
REC/PLAY	2.1	2.6	4.7	—	—	0	2.4	2.3	0	0	2.4	0	2.1	2.3	4.7	0	4.6	4.7	4.7	4.6
F.F	2.1	2.6	4.7	0	0	0	2.4	2.4	0	0	2.4	0	1.9	4.1	4.7	0	4.7	4.7	4.7	4.6
REF. NO.	IC6004																			
MODE	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120
STOP	4.6	2.9	0	0	4.7	4.7	3.7	2.5	4.3	0	0	0	4.7	4.7	4.5	4.7	4.7	4.7	4.7	4.7
REC/PLAY	4.6	2.9	0	0	4.7	4.7	—	2.5	4.6	—	0	0	4.7	4.7	4.6	4.6	4.7	4.7	4.7	4.7
F.F	4.6	2.9	0	0	4.7	4.7	—	2.5	4.3	0	0	0	4.7	4.7	4.6	4.6	4.7	4.7	4.7	4.7
REF. NO.	IC6004																			
MODE	121	122	123	124	125	126	127	128												
STOP	4.7	4.7	4.7	0	0	4.7	4.7	0												
REC/PLAY	4.7	0	0	0	0	4.7	4.7	0												
F.F	4.7	4.7	4.7	0	0	4.7	4.7	0												
REF. NO.	IC6005																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14						
STOP	0	4.7	4.7	4.7	4.7	4.7	0	0.5	4.7	4.7	4.7	4.7	0	4.7						
REC/PLAY	0	4.7	4.7	4.7	4.7	4.7	0	0.5	4.7	4.7	4.7	4.7	0	4.7						
F.F	0	4.7	4.7	4.7	4.7	4.7	0	0.5	4.6	4.7	4.6	4.6	0	4.7						
REF. NO.	IC6006																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14						
STOP	4.7	4.7	4.7	4.7	4.7	4.7	0	0	4.7	4.7	4.7	4.7	4.7	4.7						
REC/PLAY	4.7	4.7	4.7	4.7	4.7	4.7	0	0	4.7	4.7	4.7	4.7	4.7	4.7						
F.F	4.7	4.7	4.7	4.7	4.7	4.7	0	0	4.7	4.7	4.7	4.7	4.7	4.7						
REF. NO.	IC607																			
MODE	1	2	3	4	5															
STOP	4.3	4.6	0	0.8	4.7															
REC/PLAY	4.3	4.6	0	0.8	4.7															
F.F	4.4	4.6	0	0.8	4.7															
REF. NO.	IC6008																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14						
STOP	4.7	4.7	4.7	4.7	4.7	4.7	0	4.7	4.7	4.7	4.7	4.7	4.7	4.7						
REC/PLAY	4.7	4.7	4.7	4.7	4.7	4.7	0	4.7	4.7	4.7	4.7	4.7	4.7	4.7						
F.F	4.7	4.6	4.7	4.7	4.6	4.7	0	4.7	4.7	4.7	4.7	4.7	4.7	4.7						

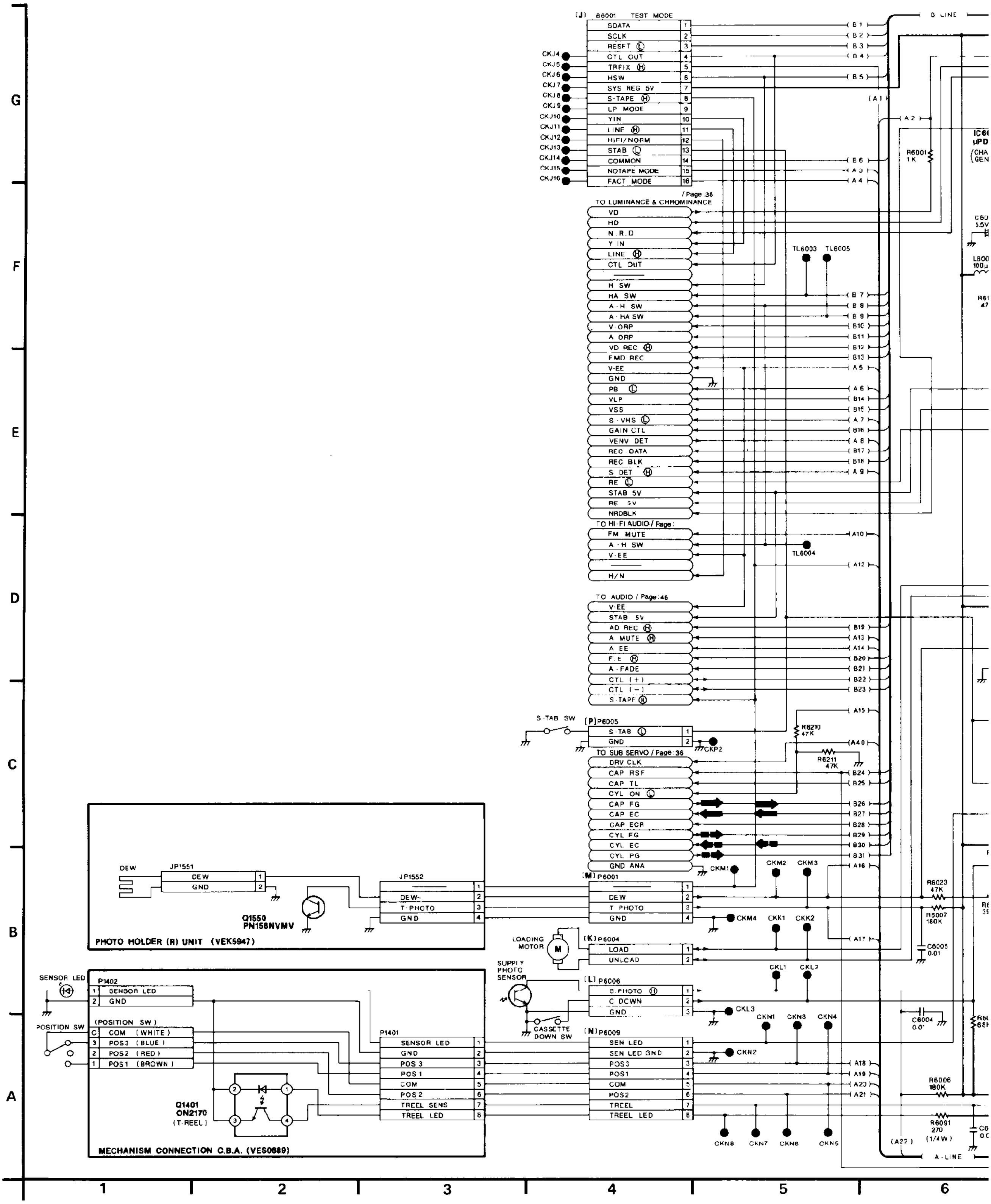
SYSTEM CONTROL & SERVO ICs DC VOLTAGE CHART

REF. NO.	IC6009										IC6010									
MODE	1	2	3								1	2	3							
STOP	0	4.7	4.7								5.0	0	12.2							
REC/PLAY	0	4.7	4.7								5.0	0	12.1							
F.F	0	4.7	4.7								5.0	0	12.1							
REF. NO.	IC6011																			
MODE	1	2	3	4	5															
STOP	4.7	4.5	0	4.5	4.7															
REC/PLAY	4.7	4.6	0	4.6	4.7															
F.F	4.6	4.6	0	4.7	4.7															

SYSTEM CONTROL & SERVO TRANSISTORs DC VOLTAGE CHART

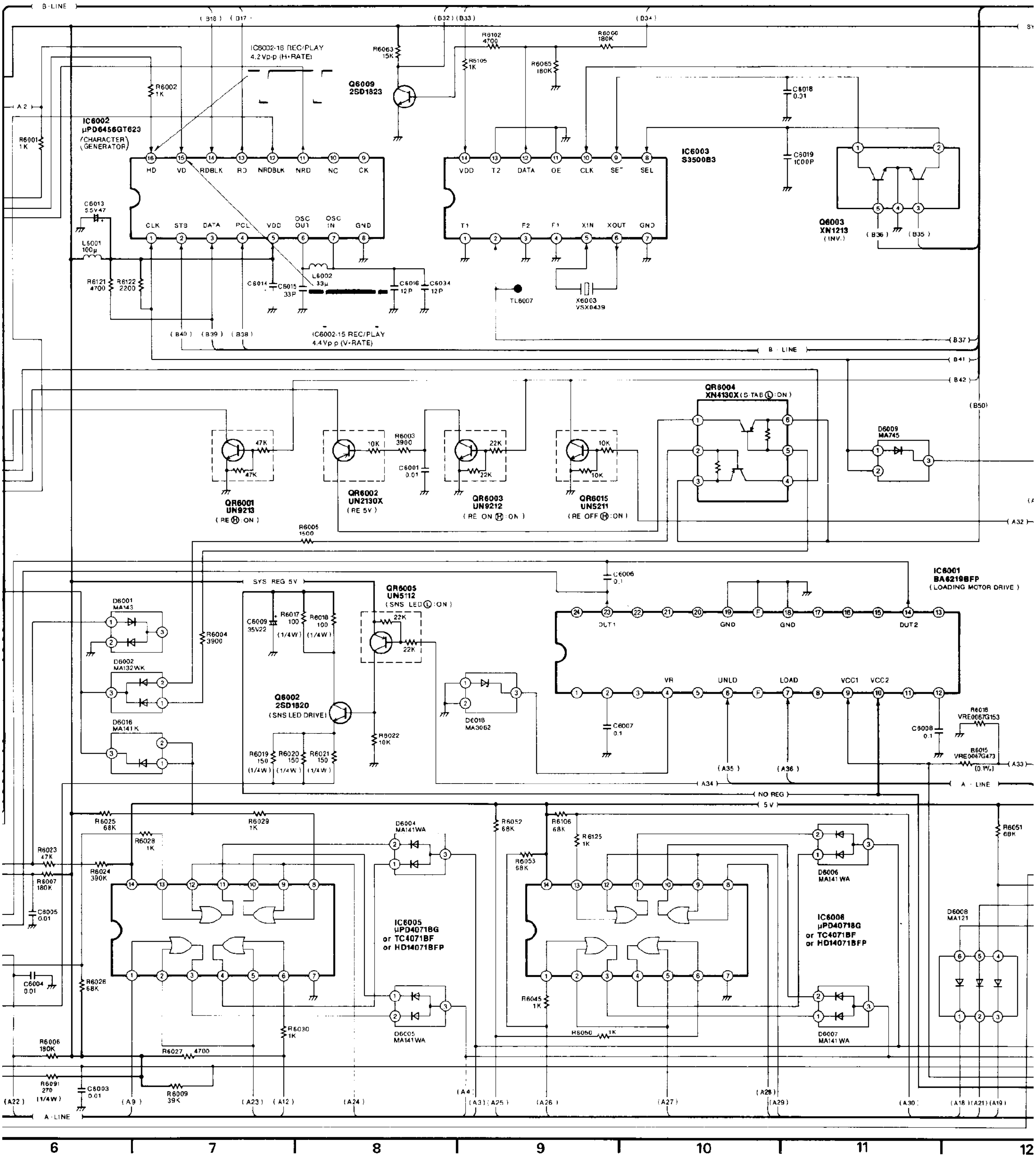
REF. NO.	Q6002			Q6003						Q6004			Q6005			Q6006		
MODE	E	C	B	1	2	3	4	5		E	C	B	E	C	B	E	C	B
STOP	0	12.2	0	1.8	1.8	0	0	0		4.7	4.7	4.0	0	0.1	0.7	0	4.6	0.1
REC/PLAY	0	12.1	0	1.8	1.8	0	0	0		4.7	4.7	4.0	0	0.1	0.7	0	4.7	0.1
F.F	1.6	10.9	1.6	1.8	1.8	0	0	0		4.7	4.7	4.0	0	0.1	0.7	0	4.6	0.1
REF. NO.	Q6007			Q6008			Q6009			Q6010			Q6012					
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
STOP	4.7	0	4.7	3.1	0	0												
REC/PLAY	4.7	0	4.7	3.1	3.9	0												
F.F	4.7	0	4.7	3.1	4.0	0												
REF. NO.	QR6001			QR6002			QR6003			QR6004						QR6005		
MODE	E	C	B	E	C	B	E	C	B	1	2	3	4	5	6	E	C	B
STOP	0	0.1	0	4.7	0.1	4.7	0	0	0	4.7	4.0	4.7	4.7	4.1	4.7	4.7	0	4.7
REC/PLAY	0	0	4.4	4.7	1.6	4.7	0	4.7	0.1	4.7	0	4.7	4.6	4.0	4.7	4.7	0	4.7
F.F	0	0	0	4.7	0.1	4.7	0	4.7	0	4.7	4.0	4.7	4.7	4.1	4.7	4.7	1.6	3.8
REF. NO.	QR6006			QR6007			QR6008			QR6010			QR6011			QR6012		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
STOP	0	0	0	0	0.1	4.5	0	0.1	4.7	4.7	4.6	0	4.7	0	4.7	4.7	0	4.7
REC/PLAY	0	4.7	0	0	0.1	4.3	0	0.1	4.7	4.7	4.6	0	4.7	0	0	4.7	4.7	0
F.F	0	4.7	0	0	0.1	4.3	0	0.1	4.7	4.7	4.6	0	4.7	0	4.7	4.7	0	4.7
REF. NO.	QR6013			QR6014			QR6015			QR6016			QR6017			QR6018		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
STOP	0	0	12.6	0	0	0	0	0	0									
REC/PLAY	0	0	12.5	0	0	4.7	0	0	4.7									
F.F	0	0	12.4	0	0	0	0	0	0									

11. SYSTEM CONTROL & SERVO SCHEMATIC DIAGRAM

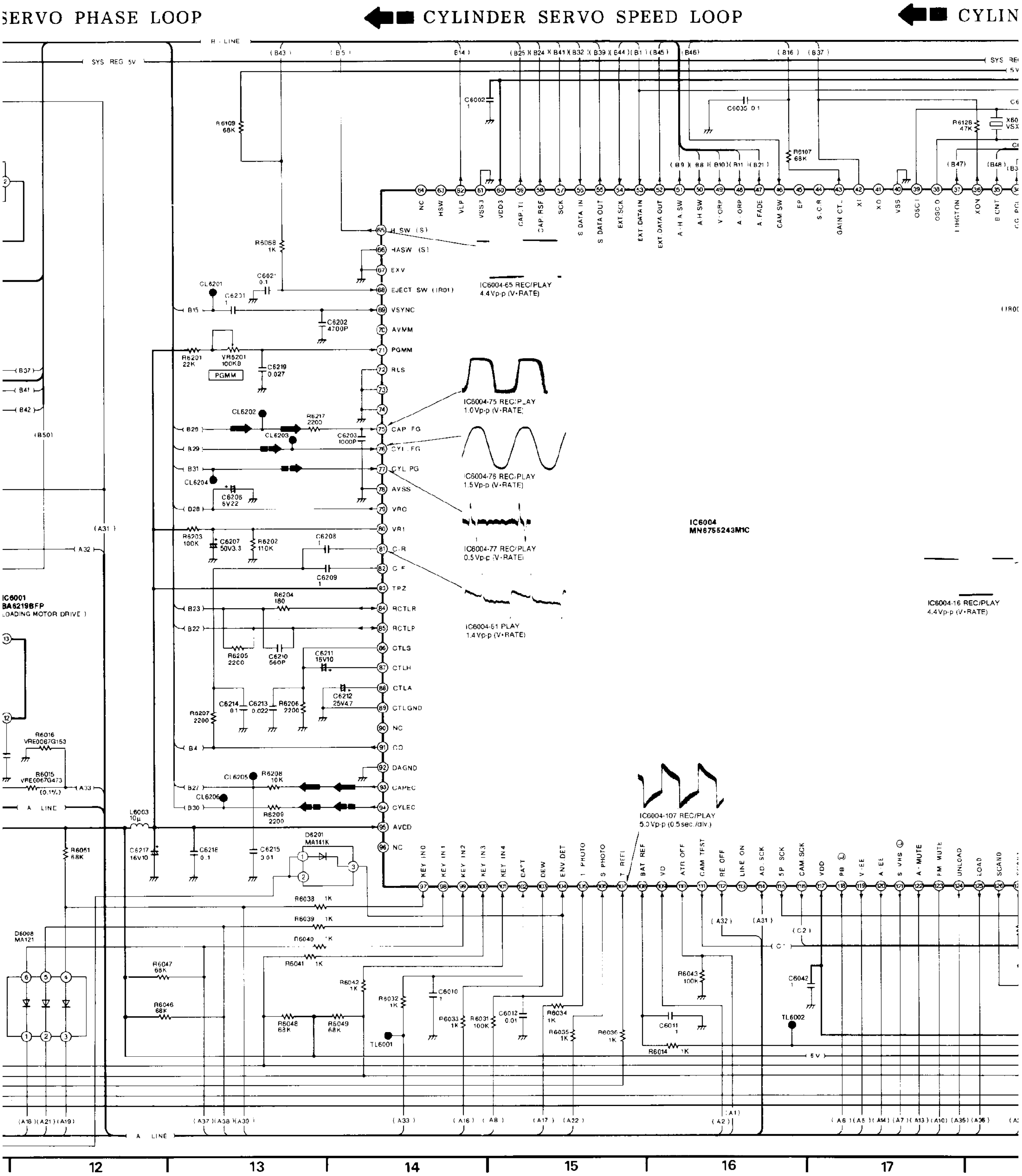

G
F
E
D
C
B
A
1
2
3
4
5
6
(J) B6001 TEST MODE
SDATA
SCLK
RESET Ⓛ
CTL OUT
TRFIX Ⓗ
HSW
SYS REG 5V
S-TAPE Ⓗ
LP MODE
YIN
LINE Ⓗ
HIFI/NORM
STAB Ⓛ
COMMON
NOTAPE MODE
FACT MODE
CKJ4
CKJ5
CKJ6
CKJ7
CKJ8
CKJ9
CKJ10
CKJ11
CKJ12
CKJ13
CKJ14
CKJ15
CKJ16
D LINE
(A1)
A2
IC6
µPD
(CHA
GEN
R6001
1K
B1
B2
B3
B4
B5
B6
A3
A4
/ Page 38
TO LUMINANCE & CHROMINANCE
VD
HD
N.R.D
Y IN
LINE Ⓗ
CTL OUT
H SW
HA SW
A-H SW
A-HA SW
V-ORP
A-ORP
VD REC Ⓗ
FMD REC
V-EE
GND
PB Ⓛ
VLP
VSS
S-VHS Ⓛ
GAIN CTL
VENV DET
REC DATA
REC BLK
S DET Ⓗ
RE Ⓛ
STAB 5V
RE 5V
NRDBLK
TL6003
TL6005
B7
B8
B9
B10
B11
B12
B13
A5
A6
B14
B15
A7
B16
A8
B17
B18
A9
C60
5.5V
L600
100µ
R61
47
TO Hi-Fi AUDIO / Page:
FM MUTE
A-H SW
V-EE
H/N
TL6004
A10
A12
TO AUDIO / Page:46
V-EE
STAB 5V
AD REC Ⓗ
A MUTE Ⓗ
A EE
F.E Ⓗ
A-FADE
CTL (+)
CTL (-)
S TAPE Ⓗ
B19
A13
A14
B20
B21
B22
B23
A15
S-TAB SW
[P] P6005
S-TAB Ⓛ
GND
CKP2
R6210
47K
A40
R6211
47K
TO SUB SERVO / Page 36
DRV CLK
CAP RSF
CAP TL
CYL ON Ⓛ
CAP FG
CAP EC
CAP ECR
CYL FG
CYL EC
CYL PG
GND ANA
B24
B25
B26
B27
B28
B29
B30
B31
A16
CKM1
CKM2
CKM3
DEW
JP1551
DEW
GND
Q1550
PN158NVMV
JP1552
DEW
T-PHOTO
GND
PHOTO HOLDER (R) UNIT (VEK5947)
[M] P6001
DEW
T PHOTO
GND
CKM4
CKK1
CKK2
A17
R6023
47K
R6007
180K
C6005
0.01
LOADING
MOTOR
M
[K] P6004
LOAD
UNLOAD
SUPPLY
PHOTO
SENSOR
[L] P6006
S PHOTO Ⓛ
C DOWN
GND
CKL1
CKL2
CKL3
CASSETTE
DOWN SW
SENSOR LED
P1402
SENSOR LED
GND
POSITION SW
(POSITION SW)
COM (WHITE)
POS3 (BLUE)
POS2 (RED)
POS1 (BROWN)
P1401
SENSOR LED
GND
POS 3
POS 1
COM
POS 2
TREEL SENS
TREEL LED
Q1401
ON2170
(T-REEL)
MECHANISM CONNECTION C.B.A. (VES0689)
[N] P6009
SEN LED
SEN LED GND
POS3
POS1
COM
POS2
TREEL
TREEL LED
CKN1
CKN3
CKN4
CKN2
CKN8
CKN7
CKN6
CKN5
A18
A19
A20
A21
C6004
0.01
R6006
180K
R6091
270
(1/4W)
(A22)
A-LINE
R6
68K

CAPSTAN SERVO SPEED LOOP

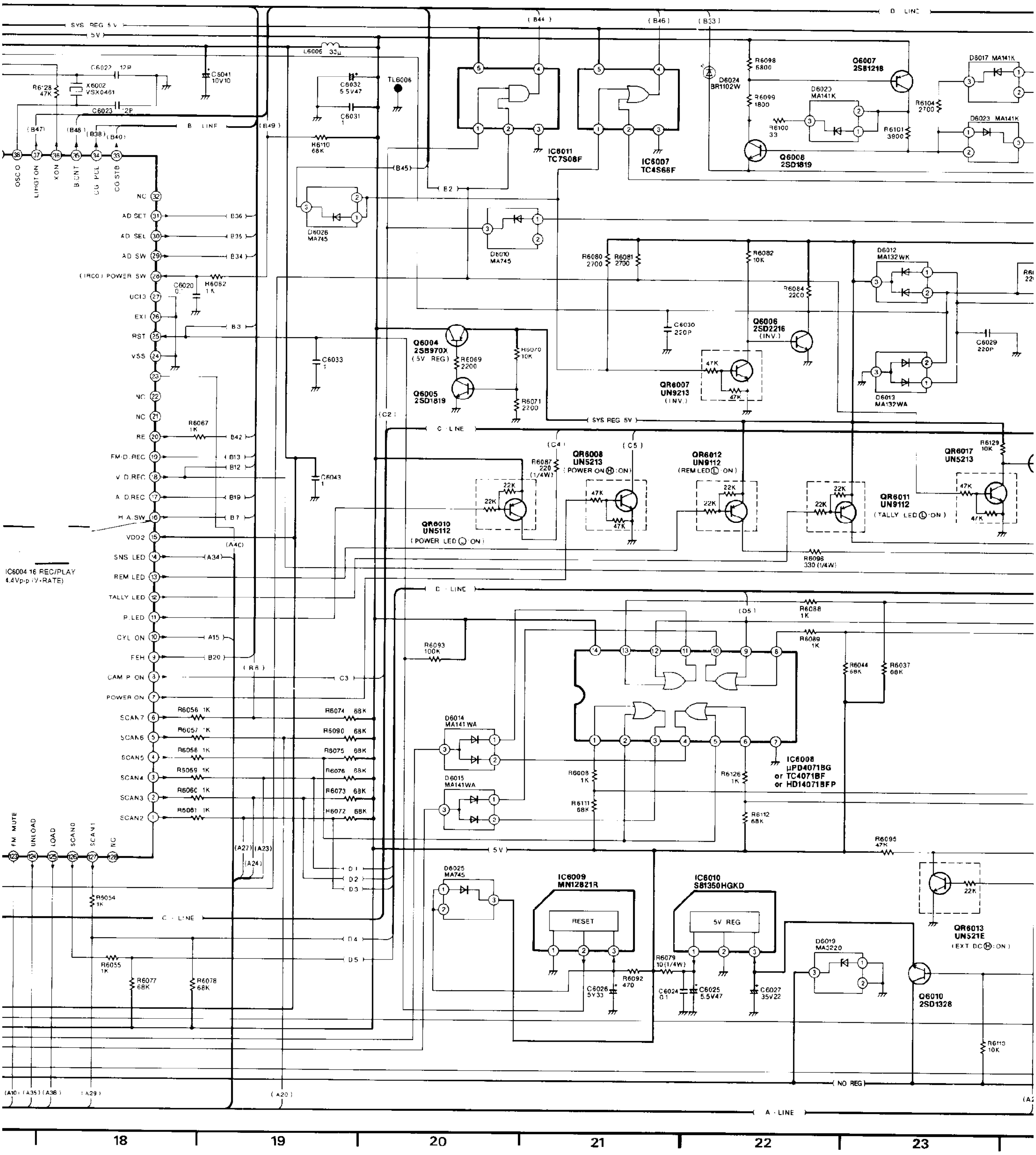
CAPSTAN SERVO PH



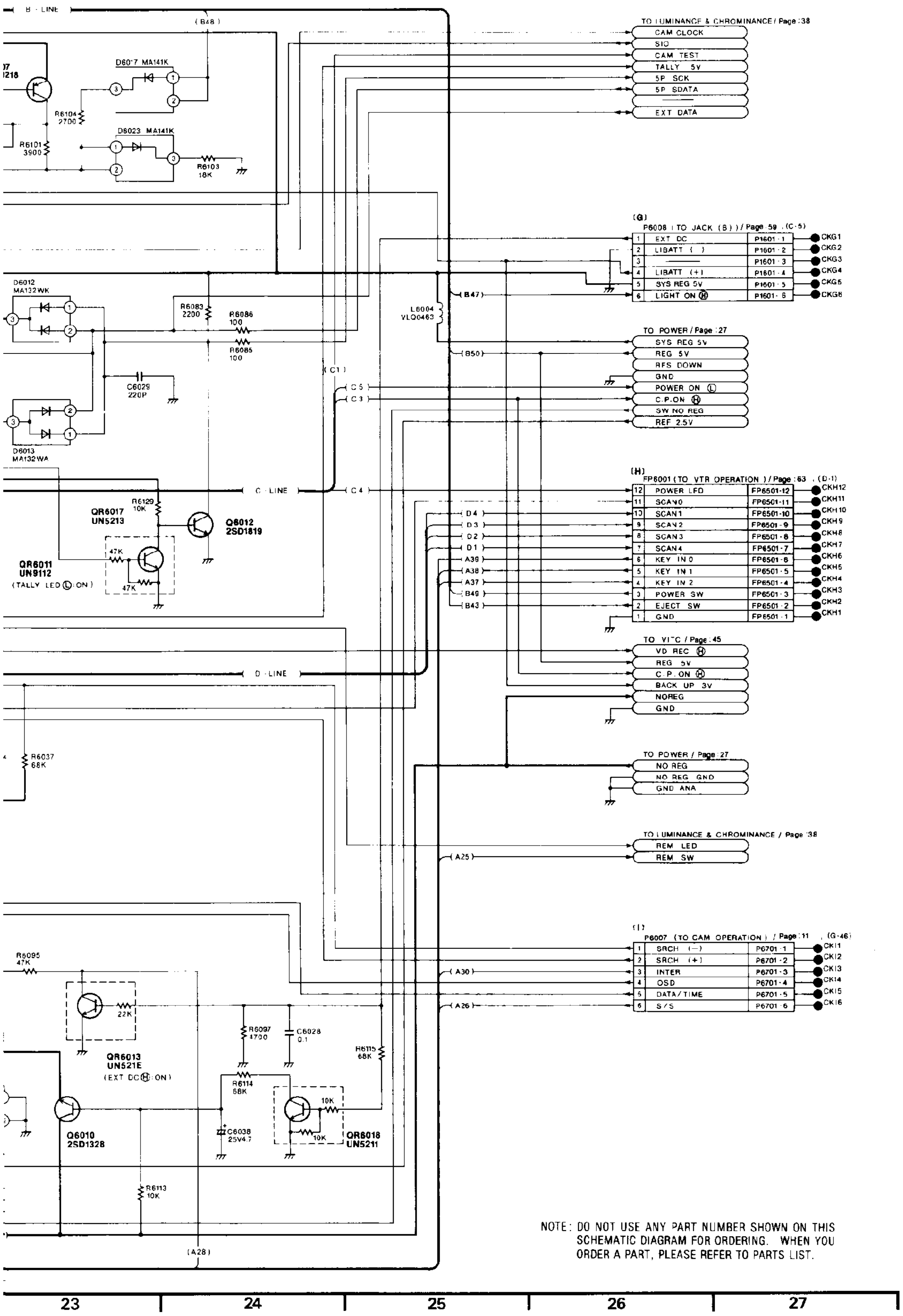
B-LINE
(B18)
(B17)
(B32)
(B33)
(B34)
IC6002-16 REC/PLAY
4.2Vp-p (H-RATE)
R6063 15K
Q6009 2SD1823
R6102 4700
R6105 1K
R6066 180K
R6065 180K
C6018 0.01
C6019 1000P
(A2)
R6002 1K
R6001 1K
IC6002
µPD6456GT623
(CHARACTER GENERATOR)
HD
VD
RDBLK
RD
NRDBLK
NRD
NC
CK
CLK
STB
DATA
PCL
VDD
OSC OUT
OSC IN
GND
IC6003
S3500B3
VDD
T2
DATA
OE
CLK
SET
SEL
T1
F2
F1
XIN
XOUT
GND
Q6003
XN1213
(INV.)
(B36)
(B35)
C6013 5.5V47
L6001 100µ
R6121 4700
R6122 2200
C6014
C6015 33P
L6002 33µ
C6016 12P
C6034 12P
TL6007
X6003
VSX0439
(B40)
(B39)
(B38)
IC6002-15 REC/PLAY
4.4Vp-p (V-RATE)
B-LINE
(B37)
(B41)
(B42)
(B50)
QR6004
XN4130X (S-TAB Ⓛ:ON)
D6009
MA745
47K
47K
QR6001
UN9213
(RE Ⓗ:ON)
10K
R6003 3900
C6001 0.01
QR6002
UN2130X
(RE 5V)
22K
22K
QR6003
UN9212
(RE ON Ⓗ:ON)
10K
10K
QR6015
UN5211
(RE OFF Ⓗ:ON)
R6005 1500
(A32)
SYS REG 5V
QR6005
UN5112
(SNS LED Ⓛ:ON)
C6006 0.1
IC6001
BA6219BFP
(LOADING MOTOR DRIVE)
OUT1
GND
GND
OUT2
VR
UNLD
LOAD
VCC1
VCC2
D6001
MA143
D6002
MA132WK
D6016
MA141K
R6004 3900
C6009 35V22
R6017 100 (1/4W)
R6018 100 (1/4W)
Q6002
2SD1820
(SNS LED DRIVE)
R6019 150 (1/4W)
R6020 150 (1/4W)
R6021 150 (1/4W)
R6022 10K
D6018
MA3062
C6007 0.1
C6008 0.1
R6016 VRE0067G153
R6015 VRE0067G473 (0.1W)
(A33)
(A35)
(A36)
(A34)
NO REG
5V
A-LINE
R6025 68K
R6029 1K
R6028 1K
R6023 47K
R6007 180K
R6024 390K
C6005 0.01
D6004
MA141WA
IC6005
µPD4071BG
or TC4071BF
or HD14071BFP
D6005
MA141WA
R6030 1K
C6004 0.01
R6026 68K
R6006 180K
R6027 4700
R6091 270 (1/4W)
C6003 0.01
R6009 39K
R6052 68K
R6106 68K
R6125 1K
R6053 68K
D6006
MA141WA
IC6006
µPD4071BG
or TC4071BF
or HD14071BFP
R6045 1K
R6050 1K
D6007
MA141WA
R6051 68K
D6008
MA121
(A22)
(A9)
(A23)
(A12)
(A24)
(A4)
(A3)
(A25)
(A26)
(A27)
(A28)
(A29)
(A30)
(A18)
(A21)
(A19)
A-LINE
6
7
8
9
10
11
12


SERVO PHASE LOOP
CYLINDER SERVO SPEED LOOP
CYLIN
H - LINE
SYS REG 5V
A LINE
IC6004
MN6755243M1C
IC6001
BA6219BFP
LOADING MOTOR DRIVE
IC6004-65 REC/PLAY
4.4Vp-p (V•RATE)
IC6004-75 REC/PLAY
1.0Vp-p (V•RATE)
IC6004-76 REC/PLAY
1.5Vp-p (V•RATE)
IC6004-77 REC/PLAY
0.5Vp-p (V•RATE)
IC6004-81 PLAY
1.4Vp-p (V•RATE)
IC6004-107 REC/PLAY
5.0Vp-p (0.5sec./div.)
IC6004-16 REC/PLAY
4.4Vp-p (V•RATE)
H SW (S)
HASW (S)
EXV
EJECT SW (IR01)
VSYNC
AVMM
PGMM
RLS
CAP FG
CYL FG
CYL PG
AVSS
VRO
VR1
C.R
C.F
TPZ
RCTLR
RCTLP
CTLS
CTLH
CTLA
CTLGND
NC
CO
DAGND
CAPEC
CYLEC
AVDD
NC
NC
HSW
VLP
VSS3
VDD3
CAP TI
CAP RSF
SCK
S DATA IN
S DATA OUT
EXT SCK
EXT DATA IN
EXT DATA OUT
A-H A SW
A H SW
V ORP
A ORP
A FADE
CAM SW
EP
S.C.R
GAIN CTL
XI
XO
VSS
OSCI
OSCO
LIHGTON
XOV
B CNT
KEY IN0
KEY IN1
KEY IN2
KEY IN3
KEY IN4
BATT
DEW
ENV DET
T PHOTO
S PHOTO
T REEL
BAT REF
VD
ATR OFF
CAM TEST
RE OFF
LINE ON
AD SCK
SP SCK
CAM SCK
VDD
PB
V EE
A EE
S VHS
A MUTE
FM MUTE
UNLOAD
LOAD
SCANO
R6109 68K
R6068 1K
C6002 1
C6035 0.1
R6107 68K
R6128 47K
C6021 0.1
C6201 1
CL6201
C6202 4700P
R6201 22K
VR6201 100KB
PGMM
C6219 0.027
CL6202
R6217 2200
CL6203
C6203 1000P
CL6204
C6206 6V22
R6203 100K
C6207 50V3.3
R6202 110K
C6208 1
C6209 1
R6204 180
R6205 2200
C6210 560P
C6211 16V10
C6212 25V47
C6214 0.1
C6213 0.022
R6206 2200
R6207 2200
CL6205
R6208 10K
CL6206
R6209 2200
L6003 10μ
C6217 16V10
C6218 0.1
C6215 0.01
D6201 MA141K
R6051 68K
R6016 VRE0067G153
R6015 VRE0067G473 (0.1%)
D6008 MA121
R6038 1K
R6039 1K
R6040 1K
R6041 1K
R6047 68K
R6046 68K
R6042 1K
R6048 68K
R6049 68K
R6032 1K
TL6001
C6010 1
R6033 1K
R6031 100K
C6012 0.01
R6034 1K
R6035 1K
R6036 1K
R6043 100K
C6011 1
R6014 1K
C6042 1
TL6002
5V
12
13
14
15
16
17

CYLINDER SERVO PHASE LOOP

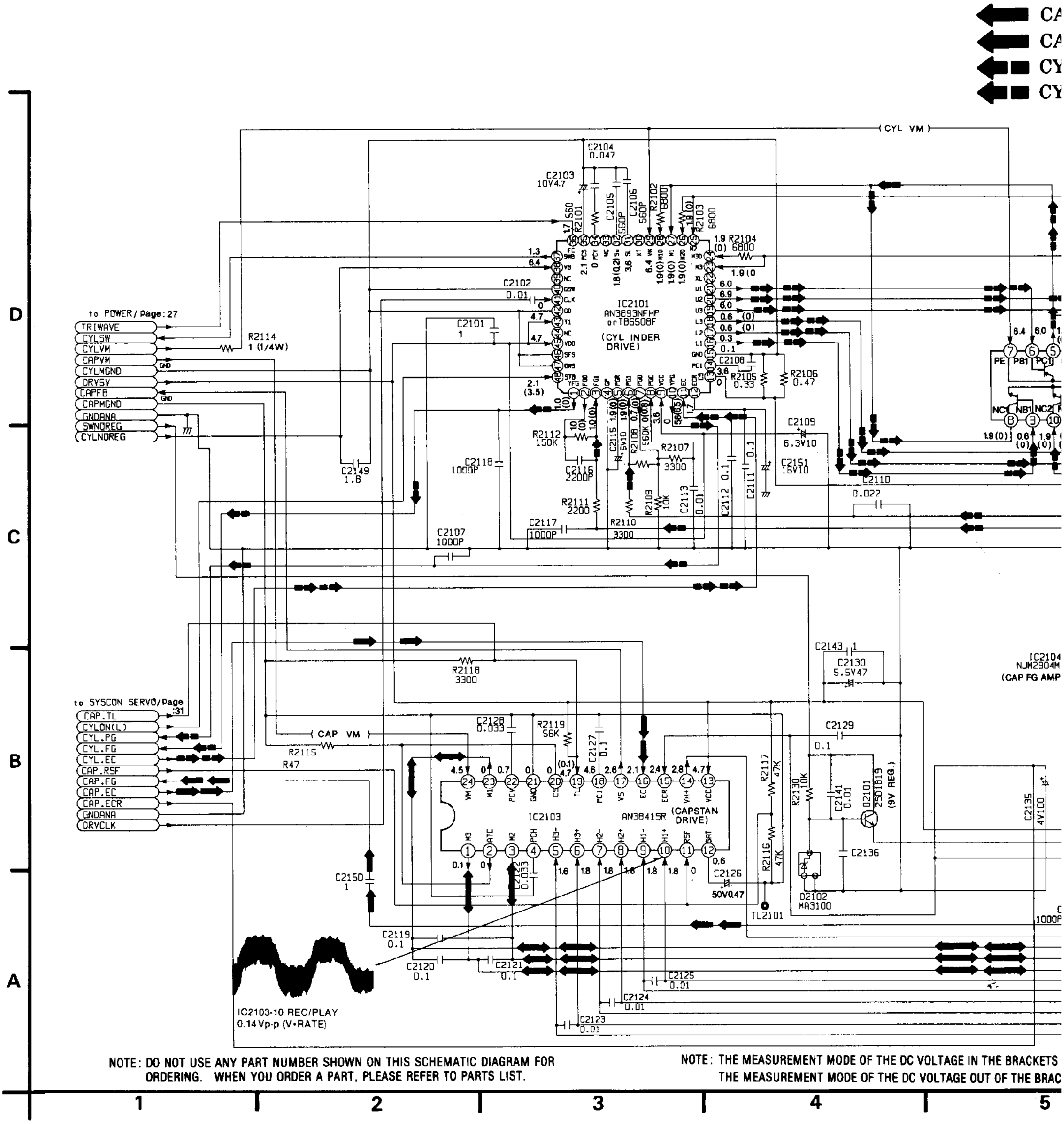


SYS REG 5V
5V
B LINE
C LINE
D LINE
A LINE
NO REG
(B44)
(B46)
(B33)
L6005 33μ
C6022 12P
C6041 10V10
R6128 47K
X6002 VSX0461
C6023 12P
C6032 5.5V47
TL6006
C6031 1
R6110 68K
D6024 BR1102W
R6098 6800
R6099 1800
R6100 33
Q6007 2SB1218
Q6008 2SD1819
D6023 MA141K
R6101 3900
R6104 2700
D6017 MA141K
IC6011 TC7S08F
IC6007 TC4S66F
D6026 MA745
D6010 MA745
R6080 2700
R6081 2700
R6082 10K
R6084 2200
D6012 MA132WK
C6030 220P
Q6006 2SD2216 (INV.)
QR6007 UN9213 (INV.)
C6029 220P
D6013 MA132WA
Q6004 2SB970X (5V REG)
R6069 2200
R6070 10K
Q6005 2SD1819
R6071 2200
C6033 1
C6043 1
C6020
R6082 1K
R6067 1K
R6087 220 (1/4W)
QR6008 UN5213 (POWER ON Ⓗ: ON)
QR6012 UN9112 (REM LED Ⓛ: ON)
QR6017 UN5213
R6129 10K
QR6010 UN5112 (POWER LED Ⓛ: ON)
QR6011 UN9112 (TALLY LED Ⓛ: ON)
R6096 330 (1/4W)
IC6004 16 REC/PLAY 4.4Vp-p (V-RATE)
OSC O
LIHGT ON
X ON
B CNT
CG PUL
CG STB
NC
AD SET
AD SEL
AD SW
(IRCO) POWER SW
UCI3
EXI
RST
VSS
NC
NC
RE
FM-D.REC
V.D.REC
A.D.REC
H.A.SW
VDD2
SNS LED
REM LED
TALLY LED
P.LED
CYL ON
FEH
CAM P.ON
POWER ON
SCAN7
SCAN6
SCAN5
SCAN4
SCAN3
SCAN2
FM MUTE
UNLOAD
LOAD
SCAN0
SCAN1
NC
R6056 1K
R6057 1K
R6058 1K
R6059 1K
R6060 1K
R6061 1K
R6074 68K
R6090 68K
R6075 68K
R6076 68K
R6073 68K
R6072 68K
R6093 100K
R6088 1K
R6089 1K
R6044 68K
R6037 68K
D6014 MA141WA
D6015 MA141WA
IC6008 μPD4071BG or TC4071BF or HD14071BFP
R6008 1K
R6111 68K
R6126 1K
R6112 68K
R6095 47K
D6025 MA745
IC6009 MN12821R
RESET
IC6010 S81350HGKD
5V REG
R6079 10 (1/4W)
R6092 470
C6026 5Y33
C6024 0.1
C6025 5.5V47
C6027 35V22
D6019 MA3220
Q6010 2SD1328
QR6013 UN521E (EXT DC Ⓗ: ON)
R6113 10K
R6054 1K
R6055 1K
R6077 68K
R6078 68K
D1
D2
D3
D4
D5
18
19
20
21
22
23


B - LINE
(B48)
TO LUMINANCE & CHROMINANCE / Page :38
CAM CLOCK
SIO
CAM TEST
TALLY 5V
5P SCK
5P SDATA
EXT DATA
D6017 MA141K
R6104 2700
R6101 3900
D6023 MA141K
R6103 18K
(G)
P6008 (TO JACK (B)) / Page 59 (C-5)
1 EXT DC P1601-1 CKG1
2 LIBATT (-) P1601-2 CKG2
3 P1601-3 CKG3
4 LIBATT (+) P1601-4 CKG4
5 SYS REG 5V P1601-5 CKG5
6 LIGHT ON Ⓗ P1601-6 CKG6
D6012 MA132WK
R6083 2200
R6086 100
R6085 100
L6004 VLQ0463
(B47)
TO POWER / Page :27
SYS REG 5V
REG 5V
RFS DOWN
GND
POWER ON Ⓛ
C.P.ON Ⓗ
SW NO REG
REF 2.5V
(B50)
(C1)
(C5)
(C3)
C6029 220P
D6013 MA132WA
(H)
FP6001 (TO VTR OPERATION) / Page :63 (D-1)
12 POWER LED FP6501-12 CKH12
11 SCAN0 FP6501-11 CKH11
10 SCAN1 FP6501-10 CKH10
9 SCAN2 FP6501-9 CKH9
8 SCAN3 FP6501-8 CKH8
7 SCAN4 FP6501-7 CKH7
6 KEY IN 0 FP6501-6 CKH6
5 KEY IN 1 FP6501-5 CKH5
4 KEY IN 2 FP6501-4 CKH4
3 POWER SW FP6501-3 CKH3
2 EJECT SW FP6501-2 CKH2
1 GND FP6501-1 CKH1
C - LINE
(C4)
(D4) (D3) (D2) (D1) (A39) (A38) (A37) (B46) (B43)
R6129 10K
QR6017 UN5213
Q6012 2SD1819
QR6011 UN9112
(TALLY LED Ⓛ: ON)
47K
47K
TO VITC / Page :45
VD REC Ⓗ
REG 5V
C.P.ON Ⓗ
BACK UP 3V
NOREG
GND
D - LINE
R6037 68K
TO POWER / Page :27
NO REG
NO REG GND
GND ANA
TO LUMINANCE & CHROMINANCE / Page :38
REM LED
REM SW
(A25)
(I)
P6007 (TO CAM OPERATION) / Page :11 (G-46)
1 SRCH (-) P6701-1 CKI1
2 SRCH (+) P6701-2 CKI2
3 INTER P6701-3 CKI3
4 OSD P6701-4 CKI4
5 DATA/TIME P6701-5 CKI5
6 S/S P6701-6 CKI6
(A30)
(A26)
R6095 47K
22K
QR6013 UN521E
(EXT DC Ⓗ: ON)
R6097 4700
C6028 0.1
R6115 68K
R6114 68K
C6038 25V4.7
10K
10K
QR6018 UN5211
Q6010 2SD1328
R6113 10K
(A28)
23
24
25
26
27

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS
SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU
ORDER A PART, PLEASE REFER TO PARTS LIST.

12. SUB SERVO SCHEMATIC DIAGRAM



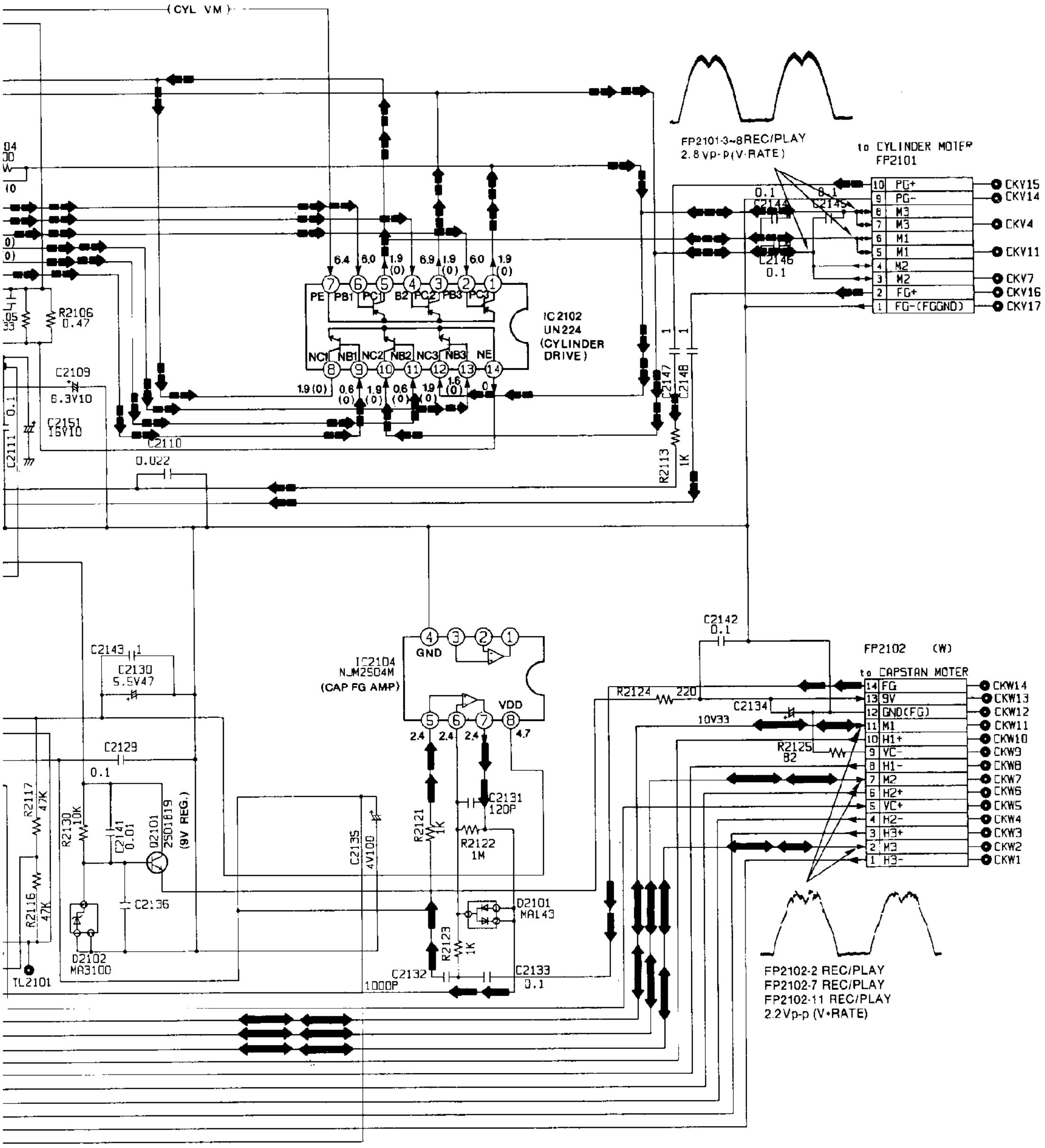
CA
CA
CY
CY
CYL VM
D
C
B
A
1
2
3
4
5
to POWER/ Page: 27
TRIWAVE
CYLSW
CYLVM
CAPVM
CYLMGND
DRV5V
CAPFB
CAPMGND
GNDANA
SWNDREG
CYLNDREG
GND
R2114
1 (1/4W)
IC2101
AN3893NFHP
or TB6508F
(CYL INDER DRIVE)
C2104
0.047
C2103
10V4.7
R2101
560
C2105
560P
C2106
560P
R2102
6800
R2103
6800
R2104
6800
C2102
0.01
C2101
1
R2105
0.33
R2106
0.47
C2108
C2109
6.3V10
C2151
16V10
C2110
0.022
R2112
150K
C2115
C2116
2200P
R2108
560K
R2107
3300
R2109
10K
C2113
0.01
C2112
0.1
C2111
0.1
R2111
2200
R2110
3300
C2117
1000P
C2118
1000P
C2149
1.8
C2107
1000P
C2143
1
C2130
5.5V47
IC2104
NJM2904M
(CAP FG AMP)
to SYSCON SERVO/Page :31
CAP.TL
CYLON(L)
CYL.PG
CYL.FG
CYL.EC
CAP.RSF
CAP.FG
CAP.EC
CAP.ECR
GNDANA
DRVCLK
CAP VM
R2115
R47
R2118
3300
C2128
0.033
R2119
56K
C2127
0.1
IC2103
AN3841SR
(CAPSTAN DRIVE)
VM
M1
PCV
GND
CS
TL
PC1
VS
EC
ECR
VH+
VCC
M3
ATC
M2
PCH
H3-
H3+
H2-
H2+
H1-
H1+
RSF
SAT
C2126
50V0.47
R2117
47K
R2116
47K
TL2101
C2129
0.1
R2130
10K
C2141
0.01
Q2101
2SD1819
(9V REG.)
C2136
D2102
MA3100
C2135
4V100
1000P
C2150
1
C2119
0.1
C2120
0.1
C2121
0.1
C2122
0.033
C2125
0.01
C2124
0.01
C2123
0.01
PE
PB1
PC1
NC1
NB1
NC2
IC2103-10 REC/PLAY
0.14Vp-p (V•RATE)

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRAC

Back Page:
SYSTEM CTL & S

⬅ CAPSTAN SERVO SPEED LOOP
⬅ CAPSTAN SERVO PHASE LOOP
⬅ CYLINDER SERVO SPEED LOOP
⬅ CYLINDER SERVO PHASE LOOP

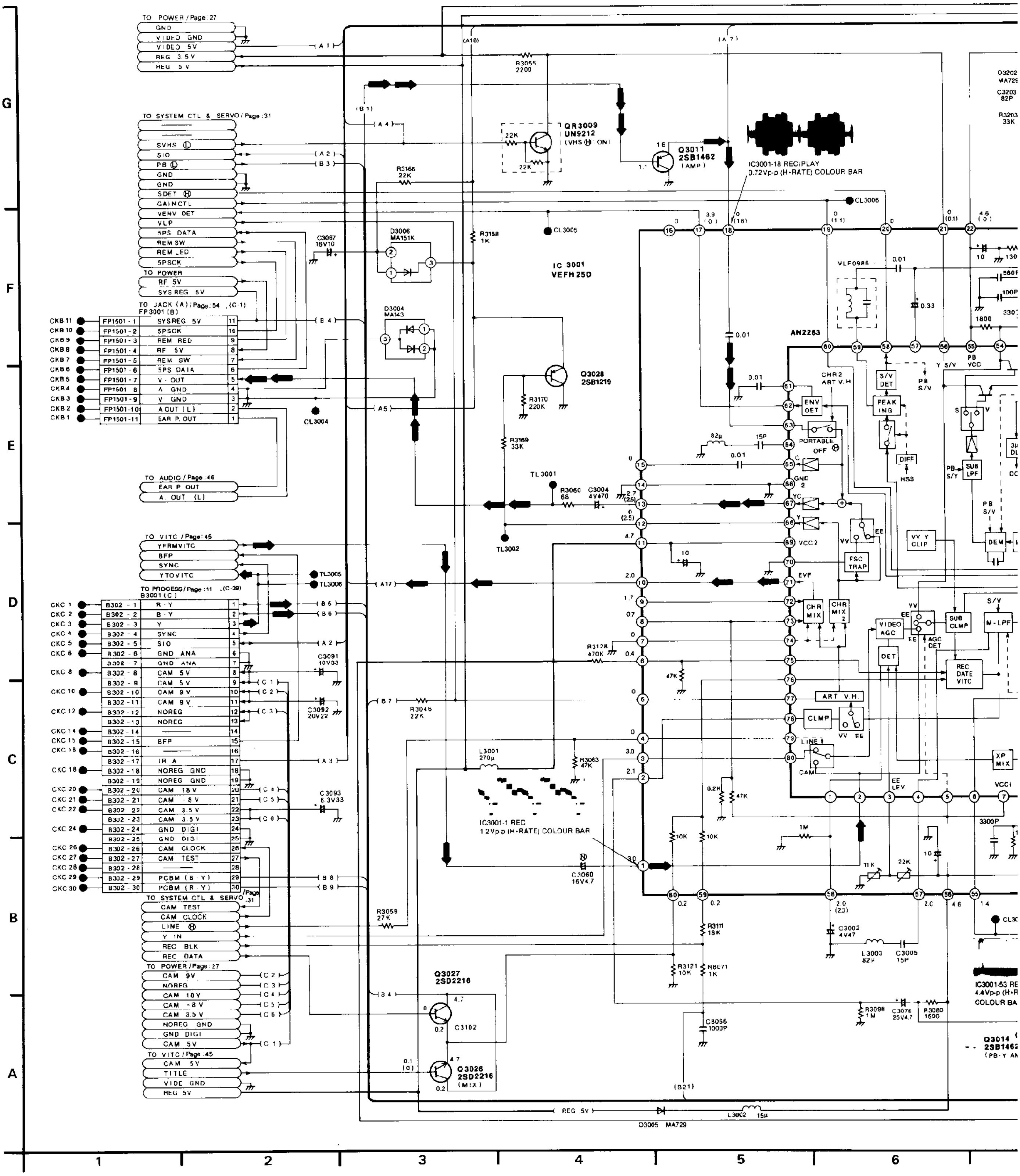


(CYL VM)
FP2101-3~8 REC/PLAY
2.8Vp-p (V-RATE)
to CYLINDER MOTER
FP2101
10 PG+
9 PG-
8 M3
7 M3
6 M1
5 M1
4 M2
3 M2
2 FG+
1 FG-(FGGND)
CKV15
CKV14
CKV4
CKV11
CKV7
CKV16
CKV17
C2144 0.1
C2145 0.1
C2146 0.1
IC2102
UN224
(CYLINDER DRIVE)
PE PB1 PC1 B2 PC2 PB3 PC3
NC1 NB1 NC2 NB2 NC3 NB3 NE
6.4 6.0 1.9 (0) 6.9 1.9 (0) 6.0 1.9 (0)
1.9 (0) 0.6 (0) 1.9 (0) 0.6 (0) 1.9 (0) 1.6 (0) 0
R2106 0.47
C2109 6.3V10
C2151 16V10
C2111 0.1
C2110 0.022
C2147 1
C2148 1
R2113 1K
C2142 0.1
FP2102 (W)
to CAPSTAN MOTER
14 FG
13 9V
12 GND(FG)
11 M1
10 H1+
9 VC-
8 H1-
7 M2
6 H2+
5 VC+
4 H2-
3 H3+
2 M3
1 H3-
CKW14
CKW13
CKW12
CKW11
CKW10
CKW9
CKW8
CKW7
CKW6
CKW5
CKW4
CKW3
CKW2
CKW1
R2124 220
C2134 10V33
R2125 82
IC2104
NJM2904M
(CAP FG AMP)
GND
VDD
2.4 2.4 2.4 4.7
C2143 1
C2130 5.5V47
C2129 0.1
R2117 47K
R2116 47K
R2130 10K
C2141 0.01
Q2101 2SD1819 (9V REG.)
C2136
D2102 MA3100
TL2101
C2135 4V100
R2121 1K
C2131 120P
R2122 1M
D2101 MA143
R2123 1K
C2132 1000P
C2133 0.1
FP2102-2 REC/PLAY
FP2102-7 REC/PLAY
FP2102-11 REC/PLAY
2.2Vp-p (V-RATE)

MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS (   ) ON THIS DIAGRAM IS RECORD MODE.
MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE.

4 5 6 7

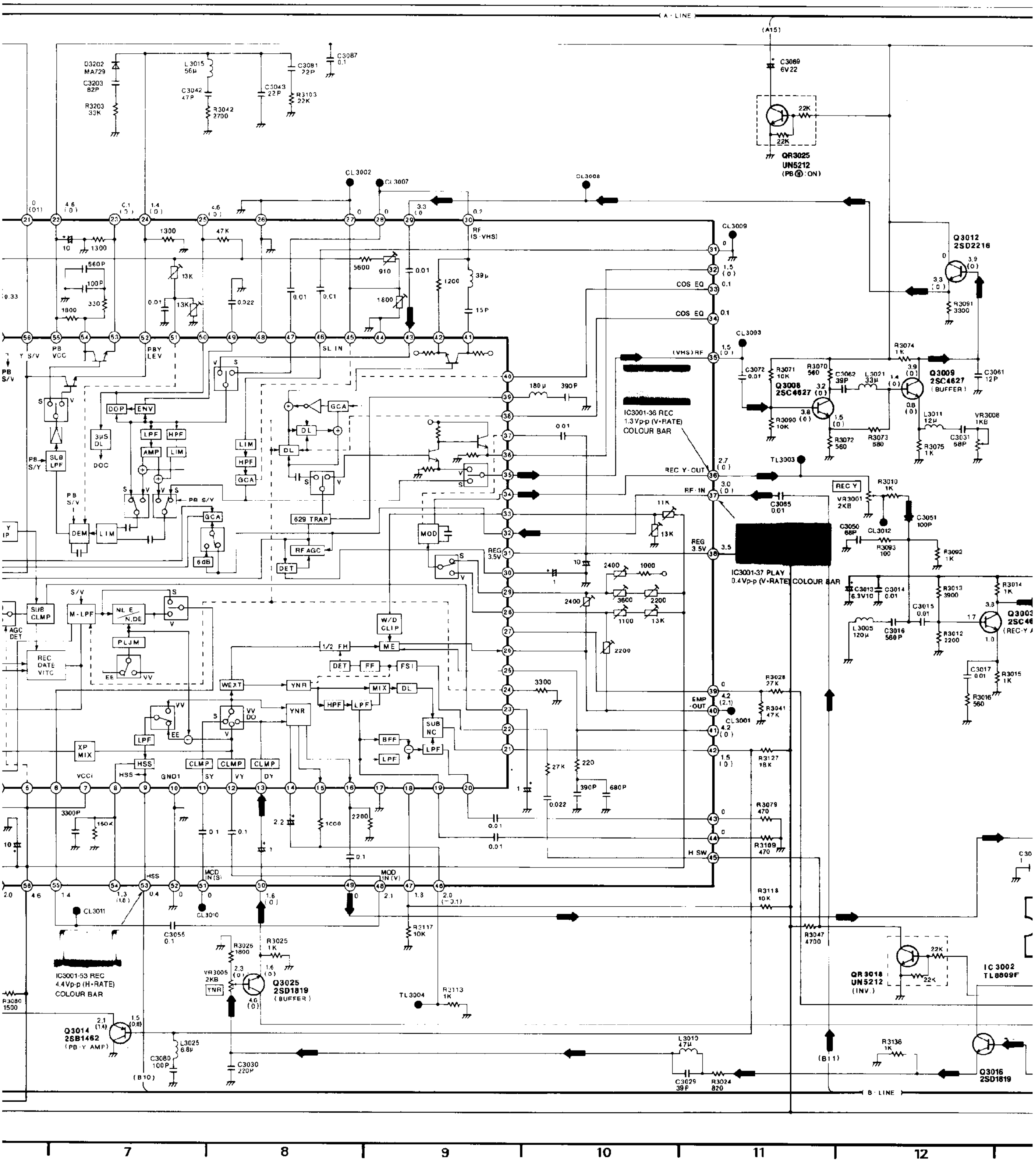
13. LUMINANCE/CHROMINANCE & HEAD AMP SCHEMATIC DIAGR


TO POWER / Page: 27
GND
VIDEO GND
VIDEO 5V
REG 3.5V
REG 5V
TO SYSTEM CTL & SERVO / Page: 31
SVHS
SIO
PB
GND
SDET
GAINCTL
VENV DET
VLP
SPS DATA
REM SW
REM LED
SPSCK
TO POWER
RF 5V
SYS REG 5V
TO JACK (A) / Page: 54
FP3001 (B)
SYSREG 5V
SPSCK
REM RED
RF 5V
REM SW
SPS DATA
V OUT
A GND
V GND
A OUT (L)
EAR P. OUT
TO AUDIO / Page: 46
EAR P OUT
A OUT (L)
TO VITC / Page: 45
YFRMVITC
BFP
SYNC
YTOVITC
TO PROCESS / Page: 11
B3001 (C)
R-Y
B-Y
Y
SYNC
SIO
GND ANA
CAM 5V
CAM 9V
NOREG
BFP
IR A
NOREG GND
CAM 18V
CAM -8V
CAM 3.5V
GND DIGI
CAM CLOCK
CAM TEST
PCBM (B-Y)
PCBM (R-Y)
TO SYSTEM CTL & SERVO / Page: 31
CAM TEST
CAM CLOCK
LINE
Y IN
REC BLK
REC DATA
TO POWER / Page: 27
TO VITC / Page: 45
TITLE
VIDE GND
REG 5V
QR3009
UN9212
(VHS: ON)
Q3011
2SB1462
(AMP)
IC3001-18 REC/PLAY
0.72Vp-p (H-RATE) COLOUR BAR
IC 3001
VEFH250
Q3028
2SB1219
D3006
MA151K
D3004
MA143
AN2263
ENV DET
PORTABLE
CHR 2
ART V.H
S/V DET
PEAKING
DIFF
FSC TRAP
CHR MIX
CHR MIX 2
VIDEO AGC
DET
AGC DET
SUB CLMP
M-LPF
REC DATE VITC
ART V H
CLMP
LINE
CAM
VV Y CLIP
DEM
SUB LPF
XP MIX
VCC
IC3001-1 REC
1.2Vp-p (H-RATE) COLOUR BAR
IC3001-53 REC
4.4Vp-p (H-RATE)
COLOUR BAR
Q3027
2SD2216
Q3026
2SD2216
(MIX)
Q3014
2SB1462
(PB-Y AMP)
D3005 MA729
L3002 15μ
D3202
MA729
C3203 82P
R3203 33K
G
F
E
D
C
B
A
1
2
3
4
5
6

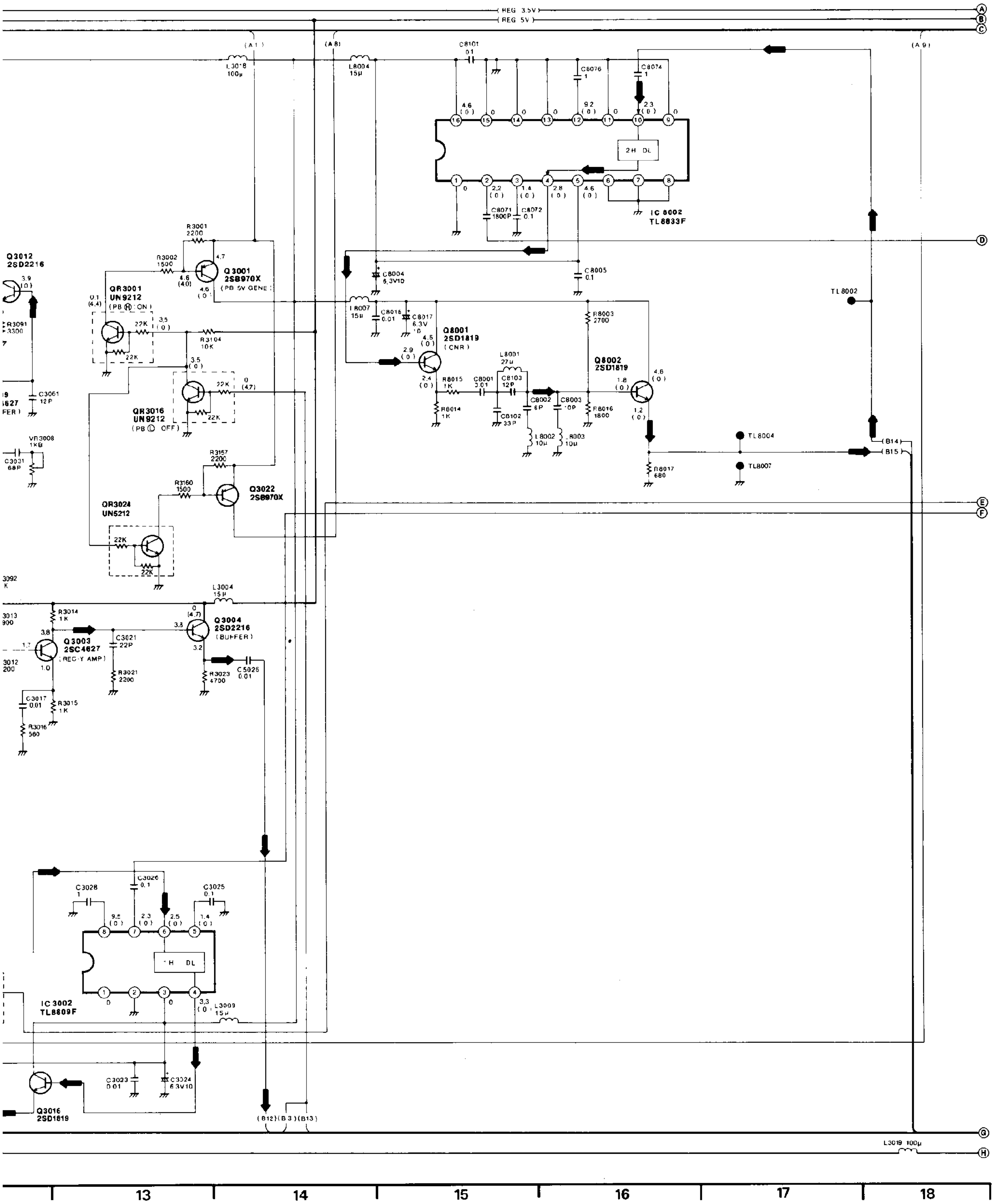
DIAGRAM

MAIN SIGNAL PATH IN REC MODE

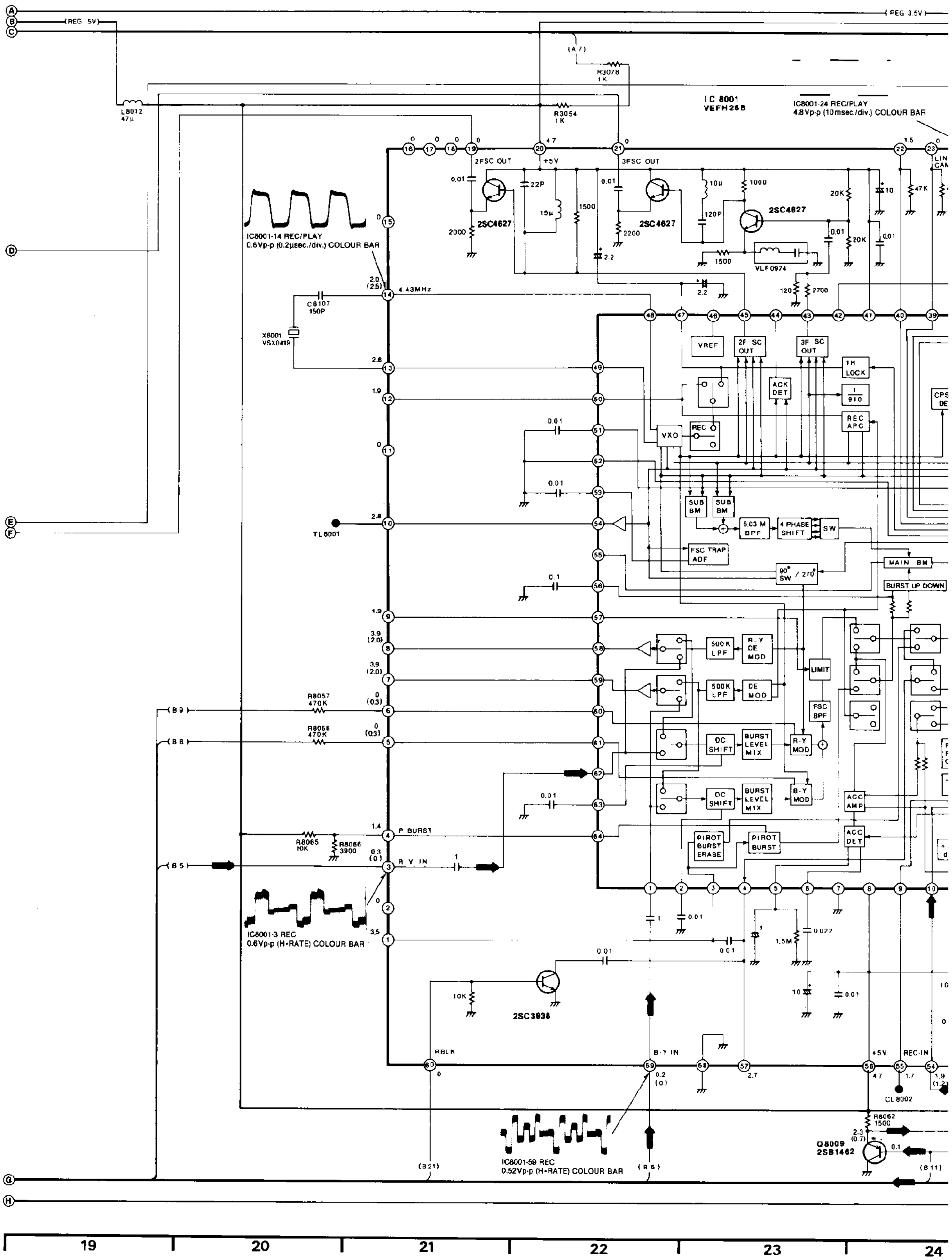
MAI

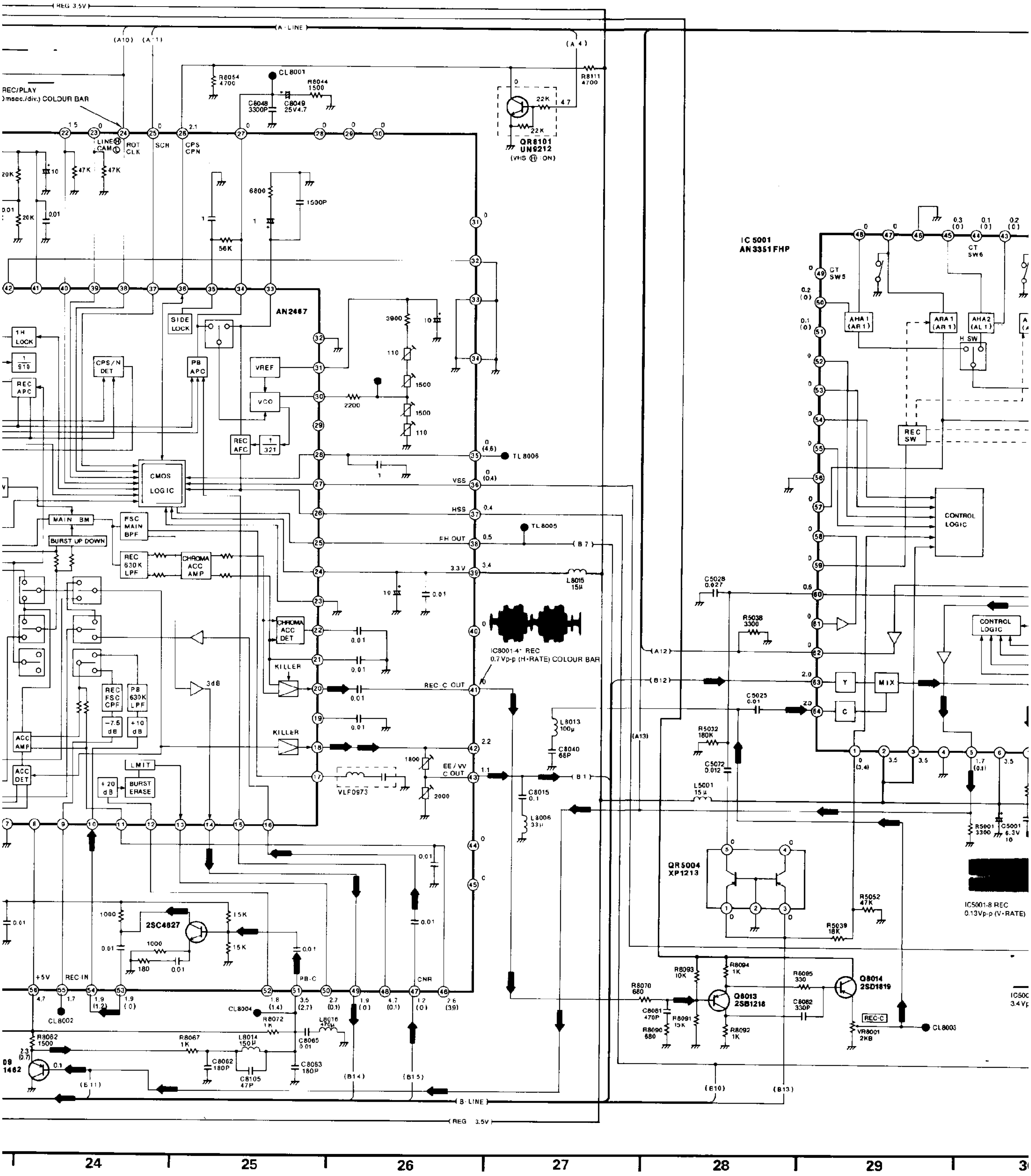

A · LINE
(A15)
C3089 6V22
QR3025 UN5212 (PB Ⓗ : ON)
22K
22K
D3202 MA729
C3203 82P
R3203 33K
L3015 56μ
C3042 47P
R3042 2700
C3043 22P
C3081 22P
R3103 22K
C3087 0.1
CL3002
CL3007
CL3008
CL3009
CL3003
CL3012
CL3001
CL3011
CL3010
TL3003
TL3004
RF (S-VHS)
COS EQ
COS EQ
(VHS) RF
REC Y-OUT
RF-IN
REG 3.5V
EMP OUT
H SW
Q3012 2SD2216
R3091 3300
R3074 1K
C3061 12P
Q3009 2SC4627 (BUFFER)
Q3008 2SC4627
R3071 10K
R3070 560
C3072 0.01
C3062 39P
L3021 33μ
R3090 10K
R3072 560
R3073 680
L3011 12μ
R3075 1K
C3031 68P
VR3008 1KB
IC3001-36 REC 1.3Vp-p (V-RATE) COLOUR BAR
IC3001-37 PLAY 0.4Vp-p (V-RATE) COLOUR BAR
REC Y
R3010 1K
VR3001 2KB
C3051 100P
C3085 0.01
C3050 68P
R3093 100
R3092 1K
C3013 6.3V10
C3014 0.01
R3013 3900
R3014 1K
C3015 0.01
Q3003 2SC46 (REC-Y A
L3005 120μ
C3016 560P
R3012 2200
C3017 0.01
R3015 1K
R3016 560
R3028 27K
R3041 47K
R3127 18K
R3079 470
R3109 470
R3118 10K
R3047 4700
QR3018 UN5212 (INV)
22K
22K
IC3002 TL8809F
R3136 1K
Q3016 2SD1819
(B11)
B · LINE
L3010 47μ
C3029 39P
R3024 820
R3117 10K
R3113 1K
R3026 1800
R3025 1K
VR3005 2KB
YNR
Q3025 2SD1819 (BUFFER)
C3030 220P
L3025 6.8μ
C3080 100P
(B10)
Q3014 2SB1462 (PB-Y AMP)
R3080 1500
C3055 0.1
IC3001-53 REC 4.4Vp-p (H-RATE) COLOUR BAR
MCD IN(S)
MOD IN(V)
HSS
VCC1
GND1
SY
VY
DY
PB VCC
PBY LEV
SL IN
Y S/V
PB S/V
PB S/Y
SLB LPF
DEM
LIM
DOP
ENV
3μS DL
DOC
LPF
HPF
AMP
LIM
PB S/V
GCA
6dB
LIM
HPF
GCA
DL
DL
GCA
629 TRAP
RF AGC
DET
MOD
W/D CLIP
ME
1/2 FH
DET
FF
FSI
WEXT
YNR
MIX
DL
HPF
LPF
SUB NC
BFF
LPF
LPF
SUB CLMP
AGC DET
M-LPF
S/V
NL E N.DE
PLJM
EE
VV
REC DATE VITC
XP MIX
LPF
HSS
CLMP
CLMP
CLMP
VV DO
EE
180μ
390P
0.01
5600
910
0.01
1200
39μ
15P
1800
1300
1300
47K
560P
100P
330
1800
13K
13K
0.01
0.022
0.01
0.01
11K
13K
2400
1000
2400
3600
2200
1100
13K
2200
3300
27K
220
390P
680P
0.022
0.01
0.01
3300P
150K
2200
1000
0.1
0.1
0.1
7
8
9
10
11
12

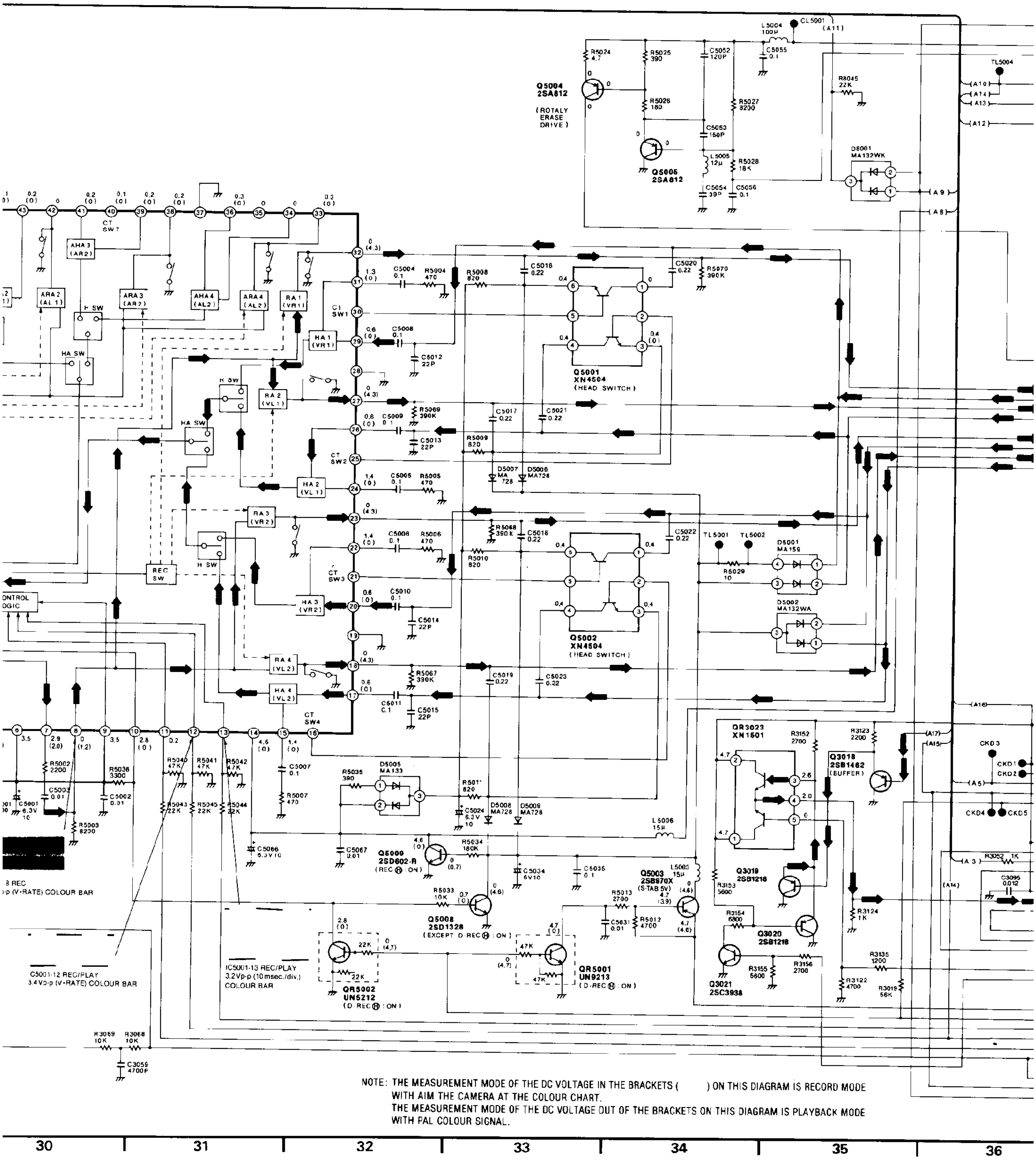
MAIN SIGNAL PATH IN PLAYBACK MODE



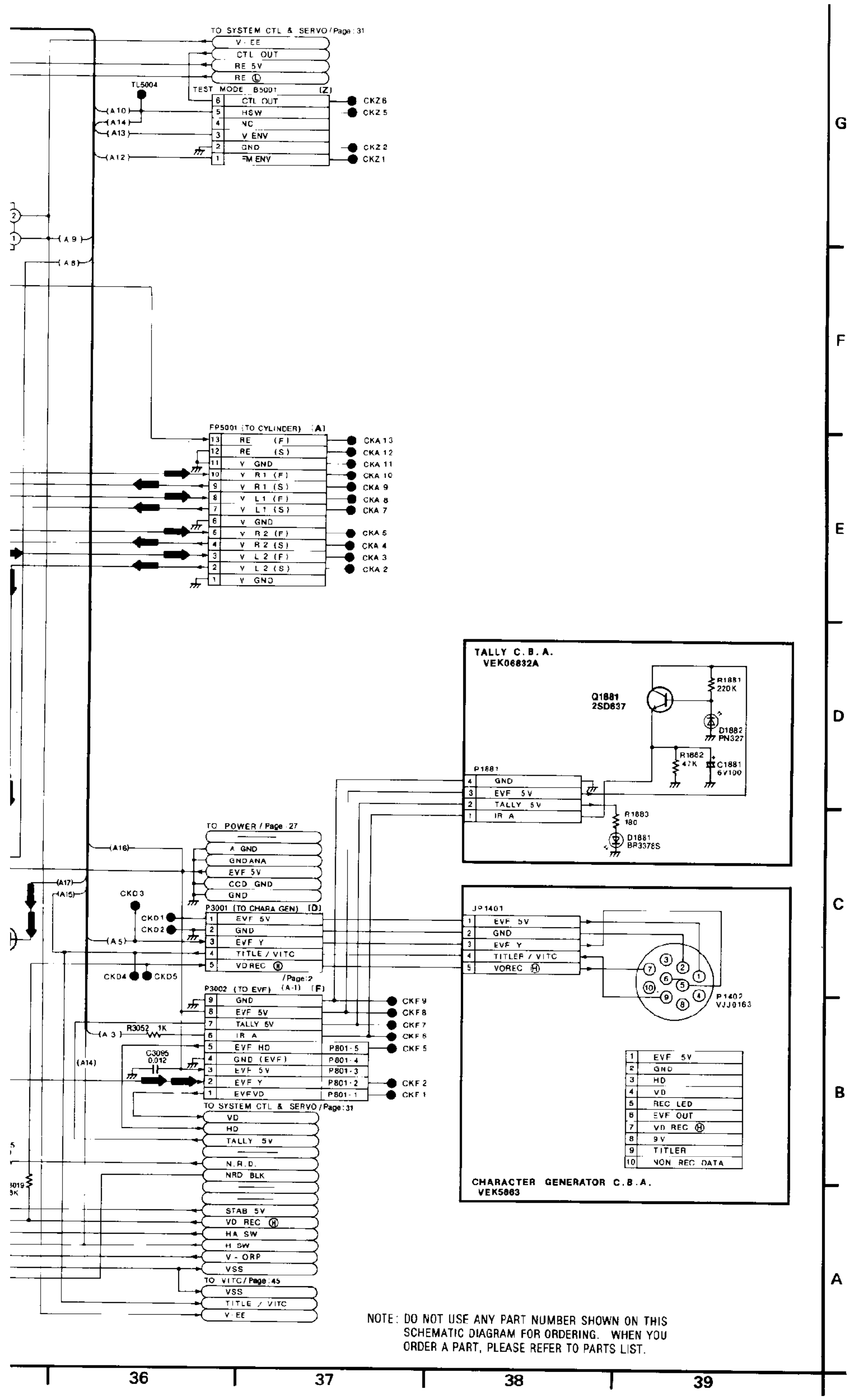
REG 3.5V
REG 5V
A
B
C
D
E
F
G
H
(A 1)
(A 8)
(A 9)
L3018 100μ
L8004 15μ
C8101 0.1
C8076 1
C8074 1
2H DL
IC 8002
TL8833F
C8071 1800P
C8072 0.1
C8004 6.3V10
C8005 0.1
R3001 2200
R3002 1500
Q3001
2SB970X
(PB 5V GENE)
Q3012
2SD2216
R3091 3300
QR3001
UN9212
(PB Ⓗ : ON)
22K
R3104 10K
QR3016
UN9212
(PB Ⓛ OFF)
C3061 12P
VR3008 1KB
C3031 68P
R3157 2200
R3160 1500
Q3022
2SB970X
QR3024
UN5212
L8007 15μ
C8016 0.01
C8017 6.3V 10
Q8001
2SD1819
(CNR)
R8015 1K
R8014 1K
C8001 0.01
L8001 27μ
C8103 12P
C8102 33P
C8002 6P
C8003 10P
L8002 10μ
L8003 10μ
R8003 2700
R8016 1800
Q8002
2SD1819
R8017 680
TL8002
TL8004
TL8007
(B14)
(B15)
L3004 15μ
R3014 1K
Q3003
2SC4627
(REC-Y AMP)
C3021 22P
R3021 2200
C3017 0.01
R3015 1K
R3016 560
Q3004
2SD2216
(BUFFER)
R3023 4700
C5026 0.01
C3028 1
C3026 0.1
C3025 0.1
1H DL
IC 3002
TL8809F
L3009 15μ
C3023 0.01
C3024 6.3V10
Q3016
2SD1819
(B12)
(B 3)
(B13)
L3019 100μ
13
14
15
16
17
18


REG 5V
REG 3.5V
(A 7)
R3078
1K
R3054
1K
L8012
47µ
I C 8001
VEFH26B
IC8001-24 REC/PLAY
4.8Vp-p (10msec./div.) COLOUR BAR
2FSC OUT
+5V
3FSC OUT
2SC4627
2SC4627
2SC4627
22P
15µ
1500
0.01
2000
2200
2.2
10µ
120P
1000
1500
VLF0974
20K
20K
47K
10
0.01
120
2700
IC8001-14 REC/PLAY
0.6Vp-p (0.2µsec./div.) COLOUR BAR
4.43MHz
C8107
150P
X8001
VSX0419
TL8001
VREF
2F SC OUT
3F SC OUT
1H LOCK
ACK DET
1/910
REC APC
VXO
REC
CPS DE
SUB BM
SUB BM
5.03 M BPF
4 PHASE SHIFT
SW
FSC TRAP ADF
90° SW / 270°
MAIN BM
BURST UP DOWN
500K LPF
R-Y DE MOD
500K LPF
DE MOD
LIMIT
FSC BPF
DC SHIFT
BURST LEVEL MIX
R-Y MOD
DC SHIFT
BURST LEVEL MIX
B-Y MOD
ACC AMP
ACC DET
PIROT BURST ERASE
PIROT BURST
R8057
470K
R8058
470K
R8065
10K
R8066
3900
P BURST
R-Y IN
(B 9)
(B 8)
(B 5)
IC8001-3 REC
0.6Vp-p (H-RATE) COLOUR BAR
1.5M
0.022
2SC3938
10K
RBLK
B-Y IN
+5V
REC-IN
CL8002
R8062
1500
Q8009
2SB1462
IC8001-59 REC
0.52Vp-p (H-RATE) COLOUR BAR
(B21)
(B 6)
(B11)
A
B
C
D
E
F
G
H
19
20
21
22
23
24


REG 3.5V
A-LINE
REC/PLAY
COLOUR BAR
CL8001
QR8101
UN9212
(VHS Ⓗ·ON)
IC 5001
AN3351FHP
AN2467
1H LOCK
CPS/N DET
REC APC
PB APC
SIDE LOCK
VREF
VCO
REC AFC
CMOS LOGIC
MAIN BM
BURST UP DOWN
FSC MAIN BPF
REC 630K LPF
CHROMA ACC AMP
CHROMA ACC DET
KILLER
REC FSC CPF
PB 630K LPF
ACC AMP
ACC DET
LMIT
BURST ERASE
TL8006
TL8005
FH OUT
REC C OUT
EE/VV C OUT
VLF0973
IC8001-4 REC
0.7Vp-p (H-RATE) COLOUR BAR
CT SW5
CT SW6
AHA1 (AR1)
ARA1 (AR1)
AHA2 (AL1)
H SW
REC SW
CONTROL LOGIC
Y
C
MIX
QR5004
XP1213
Q8013
2SB1218
Q8014
2SD1819
2SC4627
REC·C
CL8003
CL8004
CL8002
VR8001 2KB
IC5001-8 REC
0.13Vp-p (V-RATE)
B-LINE
REG 3.5V
PB-C
REC IN
CNR
+5V
24
25
26
27
28
29

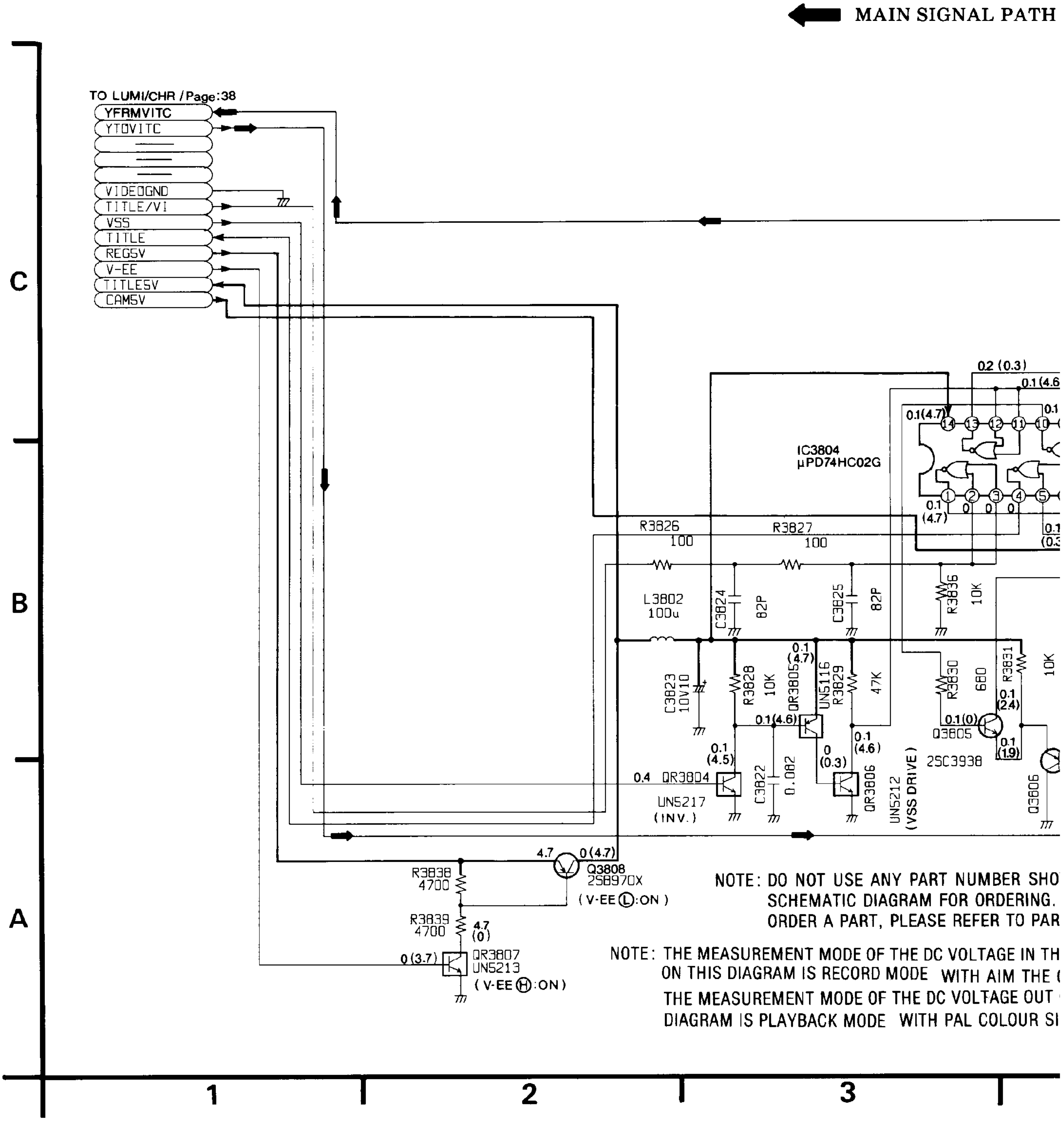

Q5004
2SA812
(ROTALY ERASE DRIVE)
Q5005
2SA812
L5004 100μ
CL5001
R5024 4.7
R5025 390
R5026 180
R5027 8200
R5028 18K
C5052 120P
C5053 150P
C5054 39P
C5055 0.1
C5056 0.1
L5005 12μ
R8045 22K
D8001 MA132WK
TL5004
AHA 3 (AR 2)
ARA 2 (AL 1)
ARA 3 (AR 2)
AHA 4 (AL 2)
ARA 4 (AL 2)
RA 1 (VR 1)
HA 1 (VR 1)
RA 2 (VL 1)
HA 2 (VL 1)
RA 3 (VR 2)
HA 3 (VR 2)
RA 4 (VL 2)
HA 4 (VL 2)
H SW
HA SW
REC SW
CONTROL LOGIC
CT SW 1
CT SW 2
CT SW 3
CT SW 4
CT SW 7
Q5001
XN4504
(HEAD SWITCH)
Q5002
XN4504
(HEAD SWITCH)
C5004 0.1
R5004 470
R5008 820
C5016 0.22
C5020 0.22
R5070 390K
C5008 0.1
C5012 22P
R5069 390K
C5009 0.1
C5013 22P
R5009 820
C5017 0.22
C5021 0.22
D5007 MA728
D5006 MA728
C5005 0.1
R5005 470
R5068 390K
C5018 0.22
C5022 0.22
C5006 0.1
R5006 470
R5010 820
C5010 0.1
C5014 22P
R5067 390K
C5019 0.22
C5023 0.22
C5011 0.1
C5015 22P
TL5001
TL5002
R6029 10
D5001 MA159
D5002 MA132WA
R5002 2200
R5036 3300
C5003 0.01
C5001 6.3V 10
C5002 0.01
R5003 8200
R5040 47K
R5041 47K
R5042 47K
R5043 22K
R5045 22K
R5044 22K
C5007 0.1
R5007 470
R5035 390
D5005 MA133
R5011 820
C5024 6.3V 10
D5008 MA728
D5009 MA728
L5006 15μ
C5066 6.3V 10
C5067 0.01
Q5009
2SD602-R
(REC Ⓡ : ON)
R5034 180K
C5034 6V 10
C5035 0.1
Q5003
2SB970X
(S-TAB 5V)
L5003 15μ
R5033 10K
Q5008
2SD1328
(EXCEPT D REC Ⓡ : ON)
R5013 2700
C5031 0.01
R5012 4700
QR5002
UN5212
(D REC Ⓡ : ON)
QR5001
UN9213
(D-REC Ⓡ : ON)
22K
47K
QR3023
XN1501
R3152 2700
R3123 2200
Q3018
2SB1462
(BUFFER)
R3153 5600
Q3019
2SB1218
R3154 6800
Q3020
2SB1218
Q3021
2SC3938
R3155 5600
R3156 2700
R3124 1K
R3135 1200
R3122 4700
R3019 56K
R3052 1K
C3095 0.012
CKD 3
CKD 1
CKD 2
CKD4
CKD5
R3069 10K
R3068 10K
C3059 4700P
C5001-12 REC/PLAY
3.4Vp-p (V-RATE) COLOUR BAR
IC5001-13 REC/PLAY
3.2Vp-p (10msec./div.)
COLOUR BAR
(A11)
(A10)
(A14)
(A13)
(A12)
(A9)
(A8)
(A16)
(A17)
(A15)
(A5)
(A3)
(A14)
30
31
32
33
34
35
36

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS ( ) ON THIS DIAGRAM IS RECORD MODE WITH AIM THE CAMERA AT THE COLOUR CHART.
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SIGNAL.


TO SYSTEM CTL & SERVO / Page: 31
V-EE
CTL OUT
RE 5V
RE Ⓛ
TL5004
TEST MODE B5001 (Z)
6 CTL OUT CKZ6
5 HSW CKZ5
4 NC
3 V ENV
2 GND CKZ2
1 FM ENV CKZ1
(A10) (A14) (A13) (A12) (A9) (A8)
FP5001 (TO CYLINDER) (A)
13 RE (F) CKA13
12 RE (S) CKA12
11 V GND CKA11
10 V R1 (F) CKA10
9 V R1 (S) CKA9
8 V L1 (F) CKA8
7 V L1 (S) CKA7
6 V GND
5 V R2 (F) CKA5
4 V R2 (S) CKA4
3 V L2 (F) CKA3
2 V L2 (S) CKA2
1 V GND
TALLY C.B.A.
VEK06832A
Q1881
2SD637
R1881 220K
D1882 PN327
R1882 47K
C1881 6V100
P1881
4 GND
3 EVF 5V
2 TALLY 5V
1 IR A
R1883 180
D1881 BP3378S
TO POWER / Page 27
A GND
GNDANA
EVF 5V
CCD GND
GND
(A16) (A17) (A15) (A5) (A3) (A14)
CKD3 CKD1 CKD2 CKD4 CKD5
P3001 (TO CHARA GEN) (D)
1 EVF 5V
2 GND
3 EVF Y
4 TITLE / VITC
5 VD REC Ⓗ
/Page: 2 (A-1)
P3002 (TO EVF) (F)
9 GND CKF9
8 EVF 5V CKF8
7 TALLY 5V CKF7
6 IR A CKF6
5 EVF HD P801-5 CKF5
4 GND (EVF) P801-4
3 EVF 5V P801-3
2 EVF Y P801-2 CKF2
1 EVFVD P801-1 CKF1
R3052 1K
C3085 0.012
TO SYSTEM CTL & SERVO / Page: 31
VD
HD
TALLY 5V
N.R.D.
NRD BLK
STAB 5V
VD REC Ⓗ
HA SW
H SW
V-ORP
VSS
TO VITC / Page: 45
VSS
TITLE / VITC
V-EE
R3019 5K
JP1401
1 EVF 5V
2 GND
3 EVF Y
4 TITLER / VITC
5 VOREC Ⓗ
P1402
VJJ0163
1 EVF 5V
2 GND
3 HD
4 VD
5 REC LED
6 EVF OUT
7 VD REC Ⓗ
8 9V
9 TITLER
10 NON REC DATA
CHARACTER GENERATOR C.B.A.
VEK5863
G
F
E
D
C
B
A
36
37
38
39

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

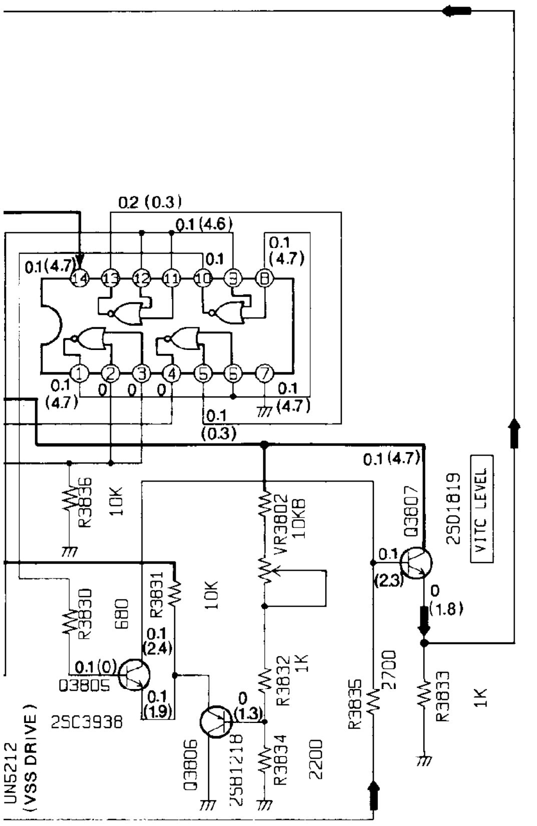
14. VITC SCHEMATIC DIAGRAM


MAIN SIGNAL PATH
TO LUMI/CHR / Page:38
YFRMVITC
YTOVITC
VIDEOGND
TITLE/VI
VSS
TITLE
REG5V
V-EE
TITLE5V
CAM5V
IC3804
µPD74HC02G
0.2 (0.3)
0.1 (4.6
0.1(4.7)
0.1
(4.7)
0
0
0
0.1
(0.3
R3826
100
R3827
100
L3802
100u
C3824
82P
C3825
82P
R3836
10K
C3823
10V10
R3828
10K
0.1
(4.7)
QR3805
UN5116
R3829
47K
R3830
680
R3831
10K
0.1(4.6)
0.1
(2.4)
0.1(0)
Q3805
2SC3938
0.1
(1.9)
0.1
(4.5)
0
(0.3)
0.1
(4.6)
0.4
QR3804
UN5217
(INV.)
C3822
0.082
QR3806
UN5212
(VSS DRIVE)
Q3806
4.7
0 (4.7)
Q3808
2SB970X
(V-EE Ⓛ:ON)
R3838
4700
R3839
4700
4.7
(0)
0 (3.7)
QR3807
UN5213
(V-EE Ⓗ:ON)
C
B
A
1
2
3

NOTE: DO NOT USE ANY PART NUMBER SHO
SCHEMATIC DIAGRAM FOR ORDERING.
ORDER A PART, PLEASE REFER TO PAR

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN TH
ON THIS DIAGRAM IS RECORD MODE WITH AIM THE (
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT
DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SI

IN SIGNAL PATH

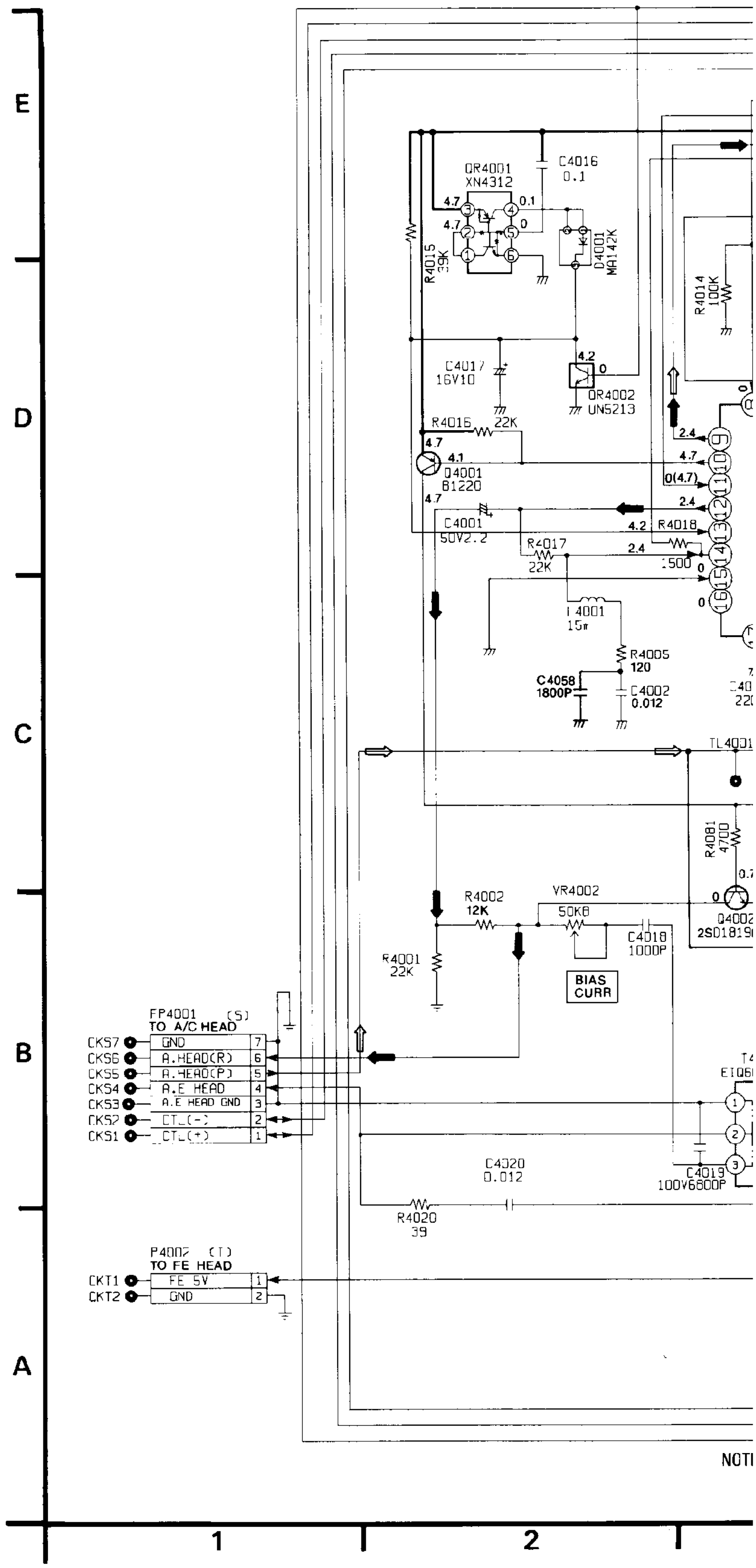


0.2 (0.3)
0.1 (4.6)
0.1 (4.7)
0.1
0.1 (4.7)
14
13
12
11
10
9
8
1
2
3
4
5
6
7
0.1 (4.7)
0
0
0
0.1 (4.7)
0.1 (0.3)
0.1 (4.7)
R3836
10K
VR3802
10KB
Q3807
2SD1819
VITC LEVEL
0.1 (2.3)
0 (1.8)
R3830
680
R3831
10K
0.1 (2.4)
0.1 (0)
Q3805
2SC3938
0.1 (1.9)
0 (1.3)
R3832
1K
R3835
2700
R3833
1K
Q3806
2SB1218
R3834
2200
UN5212
(VSS DRIVE)

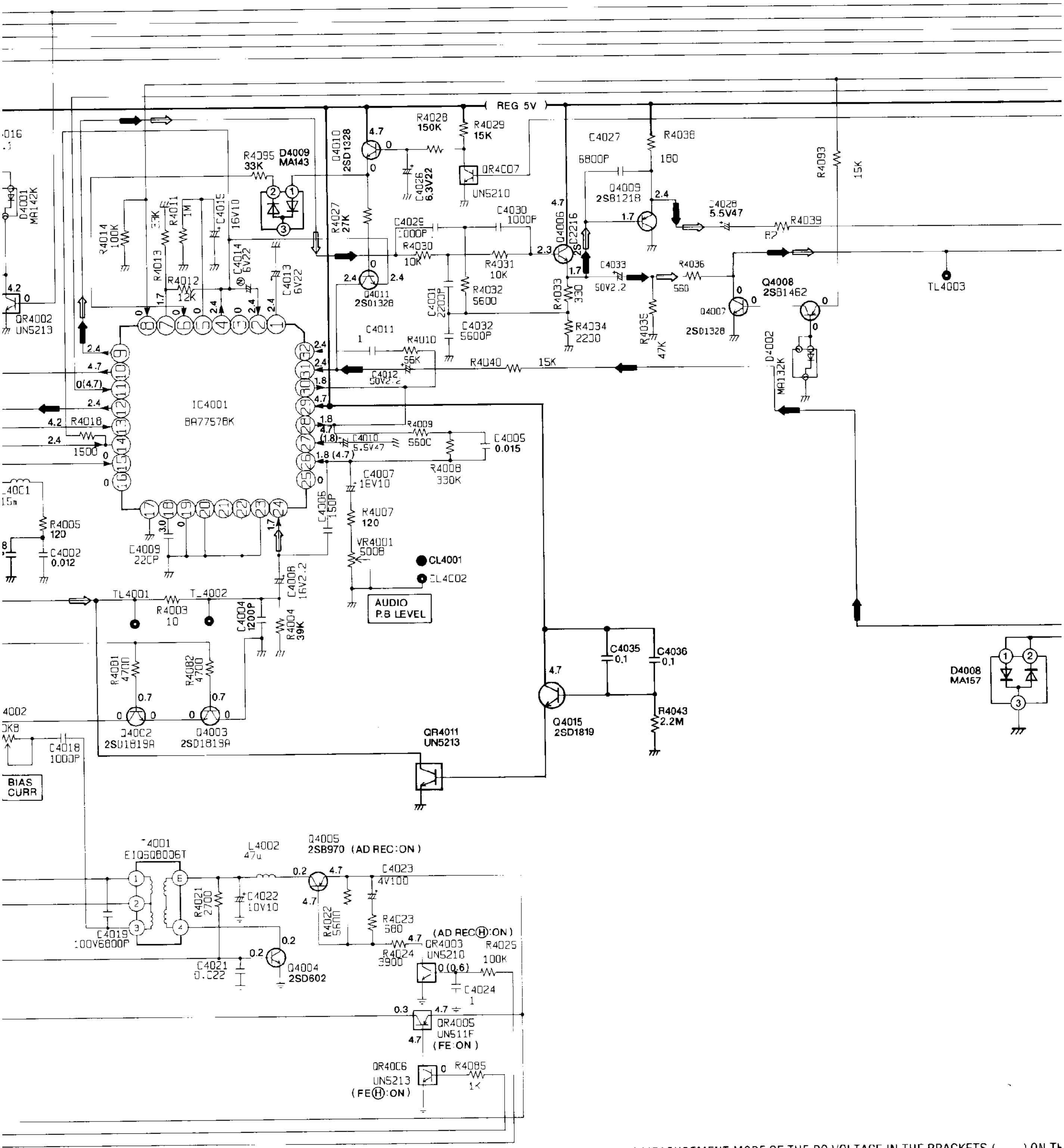
IY PART NUMBER SHOWN ON THIS
GRAM FOR ORDERING. WHEN YOU
PLEASE REFER TO PARTS LIST.

THE DC VOLTAGE IN THE BRACKETS (   )
MODE WITH AIM THE CAMERA AT THE COLOUR CHART.
THE DC VOLTAGE OUT OF THE BRACKETS ON THIS
WITH PAL COLOUR SIGNAL.

15. AUDIO SCHEMATIC DIAGRAM


E
D
C
B
A
1
2
QR4001
XN4312
C4016
0.1
4.7
4.7
0.1
0
D4001
MA142K
R4015
39K
R4014
100K
C4017
16V10
4.2
0
QR4002
UN5213
R4016
22K
4.7
4.1
Q4001
B1220
4.7
C4001
50V2.2
R4017
22K
2.4
4.7
0(4.7)
2.4
4.2
R4018
2.4
1500
0
0
9
10
11
12
13
14
15
16
L4001
15m
R4005
120
C4058
1800P
C4002
0.012
TL4001
R4081
4700
0.7
0
Q4002
2SD1819
R4002
12K
VR4002
50KB
C4018
1000P
R4001
22K
BIAS CURR
FP4001 (S)
TO A/C HEAD
CKS7
CKS6
CKS5
CKS4
CKS3
CKS2
CKS1
GND
A.HEAD(R)
A.HEAD(P)
A.E HEAD
A.E HEAD GND
CTL(-)
CTL(+)
7
6
5
4
3
2
1
T4
EI06
1
2
3
C4020
0.012
C4019
100V6800P
R4020
39
P4002 (T)
TO FE HEAD
CKT1
CKT2
FE 5V
GND
1
2
NOTI

MAIN SIGNAL PATH IN REC MODE ⇦ MAIN SIGNAL PATH IN PLAYB



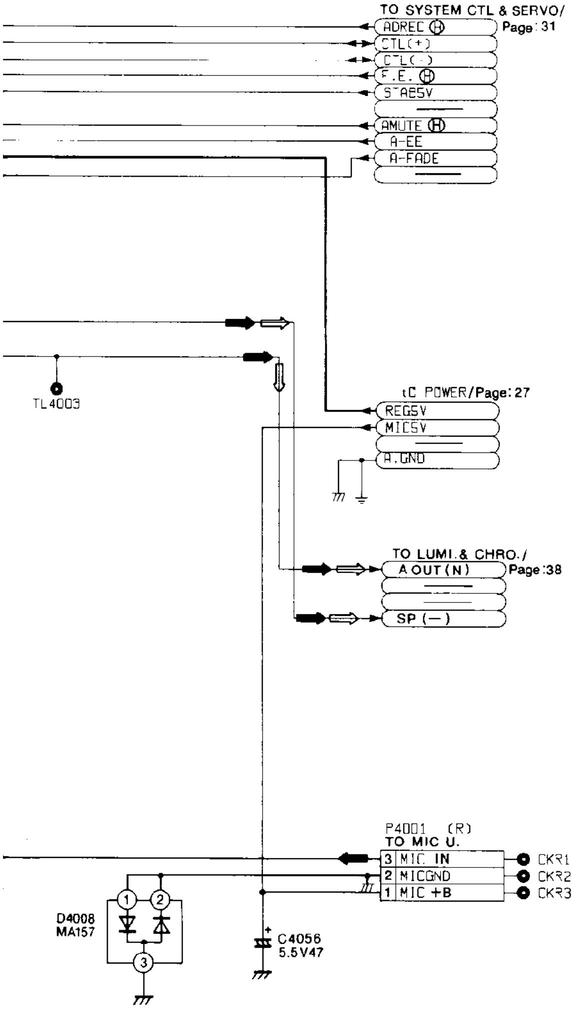
REG 5V
IC4001
BA7757BK
R4028 150K
R4029 15K
QR4C07 UN5210
Q4010 2SD1328
C4026 6.3V22
R4095 33K
D4009 MA143
R4014 100K
R4013 33K
R4011 1M
C4015 16V10
C4014 6V22
C4013 6V22
R4012 12K
R4027 27K
C4029 1000P
R4030 10K
C4030 1000P
R4031 10K
R4032 5600
C4031 2200P
C4032 5600P
Q4011 2SD1328
C4011 1
R4010 56K
C4012 50V2.2
R4040 15K
C4027 6800P
R4038 180
Q4009 2SB1218
Q4006 2SC2216
R4033 330
R4034 2200
C4033 50V2.2
R4036 560
R4035 47K
C4028 5.5V47
R4039 82
Q4007 2SD1328
Q4008 2SB1462
R4093 15K
TL4003
D4002 MA132K
D4001 MA142K
QR4002 UN5213
R4018 1500
R4009 560
C4010 5.5V47
C4005 0.015
R4008 330K
C4007 16V10
R4007 120
VR4001 500B
CL4001
CL4C02
AUDIO P.B LEVEL
C4006 150P
C4008 16V2.2
C4009 22CP
R4005 120
C4002 0.012
L4001 15m
TL4001
TL4002
R4003 10
C4004 1200P
R4004 39K
R4081 4700
R4082 4700
Q4002 2SD1819A
Q4003 2SD1819A
C4018 1000P
BIAS CURR
QR4011 UN5213
C4035 0.1
C4036 0.1
R4043 2.2M
Q4015 2SD1819
D4008 MA157
T4001 E1Q50B006T
L4002 47u
Q4005 2SB970 (AD REC:ON)
C4023 4V100
C4022 10V10
R4021 2700
R4022 5600
R4023 560
C4019 100V6800P
C4021 0.022
Q4004 2SD602
(AD REC(H):ON)
QR4003 UN5210
R4024 3900
R4025 100K
C4024 1
QR4005 UN511F (FE:ON)
QR4006 UN5213 (FE(H):ON)
R4085 1K

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS ( ) ON TH
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS

3 4 5 6

PATH IN PLAYBACK MODE



IE BRACKETS ( ) ON THIS DIAGRAM IS RECORD MODE
)F THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE

6 7

MAIN C.B.A. ADDRESS INFORMATION

SYSTEM CONTROL & SERVO Section	
Transistor	
Q6002	D-13
Q6003	C-16
Q6004	C-10
Q6005	C-10
Q6006	A-17
Q6007	C-10
Q6008	C-10
Q6009	C-10
Q6010	F-16
Q6012	B-17
Transistor & Resistor	
QR6001	C-18
QR6002	C-19
QR6003	D-18
QR6004	D-19
QR6005	C-13
QR6007	A-17
QR6008	E-8
QR6010	D-14
QR6011	E-17
QR6012	B-17
QR6013	D-11
QR6015	D-17
QR6017	B-17
QR6018	E-16
Integrated Circuit	
IC6001	C-13
IC6002	C-14
IC6003	C-13
IC6004	D-8
IC6005	D-14
IC6006	D-13
IC6007	C-17
IC6008	D-14
IC6009	F-17
IC6010	F-17
IC6011	D-6
Test Point	
CL6004	D-7
CL6005	D-7
CL6201	D-6
CL6202	C-9
CL6203	C-9
CL6204	B-10
CL6205	C-10
CL6206	B-7
TL6001	E-7
TL6002	E-7
TL6003	D-4
TL6004	D-7
TL6005	D-7
TL6006	C-8
TL6007	C-10
Adjustment	
VR6201	C-9
Connector	
B6001	E-8
FP6001	G-11
P6001	F-11
P6004	A-7
P6005	G-6
P6006	D-1
P6007	G-5
P6008	C-11
P6009	D-11

ADDRESS INFORMATION

LUMINANCE/CHROMINANCE & HEAD AMP Section	
Transistor	
Q3001	D-22
Q3003	D-21
Q3004	D-21
Q3008	E-21
Q3009	E-21
Q3011	G-22
Q3012	E-21
Q3014	D-21
Q3016	F-22
Q3018	D-20
Q3019	G-3
Q3020	G-3
Q3021	G-3
Q3022	C-2
Q3025	F-2
Q3026	D-20
Q3027	E-20
Q3028	F-21
Q5001	B-20
Q5002	A-21
Q5003	B-20
Q5004	A-4
Q5005	A-5
Q5008	B-19
Q5009	A-20
Q8001	F-5
Q8002	E-6
Q8009	F-18
Q8013	E-6
Q8014	E-18
Transistor & Resistor	
QR3001	D-22
QR3009	E-20
QR3016	D-22
QR3023	F-4
QR3024	C-2
QR3025	F-1
QR5001	C-19
QR5002	B-3
QR5004	C-21
QR8101	E-19
Integrated Circuit	
IC3001	E-3
IC3002	F-21
IC5001	B-3
IC8001	E-5
IC8002	F-19
Test Point	
CL3001	E-3
CL3002	E-3
CL3003	E-3
CL3004	E-4
CL3005	E-4
CL3006	E-4
CL3007	E-3
CL3008	E-3
CL3009	E-2
CL3010	D-3
CL3011	D-4
CL3012	E-3
CL5001	B-4
CL8001	E-5
CL8002	F-6
CL8003	E-5
CL8004	F-6
TL3001	C-5
TL3002	D-5
TL3003	E-2
TL3004	D-3
TL3005	D-20
TL3006	E-22
TL5001	A-3
TL5002	A-3
TL5003	A-3
TL5004	D-8
TL8001	F-5
TL8002	E-5
TL8004	E-6
TL8005	E-5
TL8006	E-5
TL8007	E-6
Adjustment	
VR3001	D-2
VR3005	F-2
VR3008	E-2
VR8001	E-5
Connector	
B3001	E-22
B5001	C-4
FP3001	B-6
FP5001	A-3
P3001	G-2
P3002	G-4
P3004	G-3

ADDRESS INFORMATION

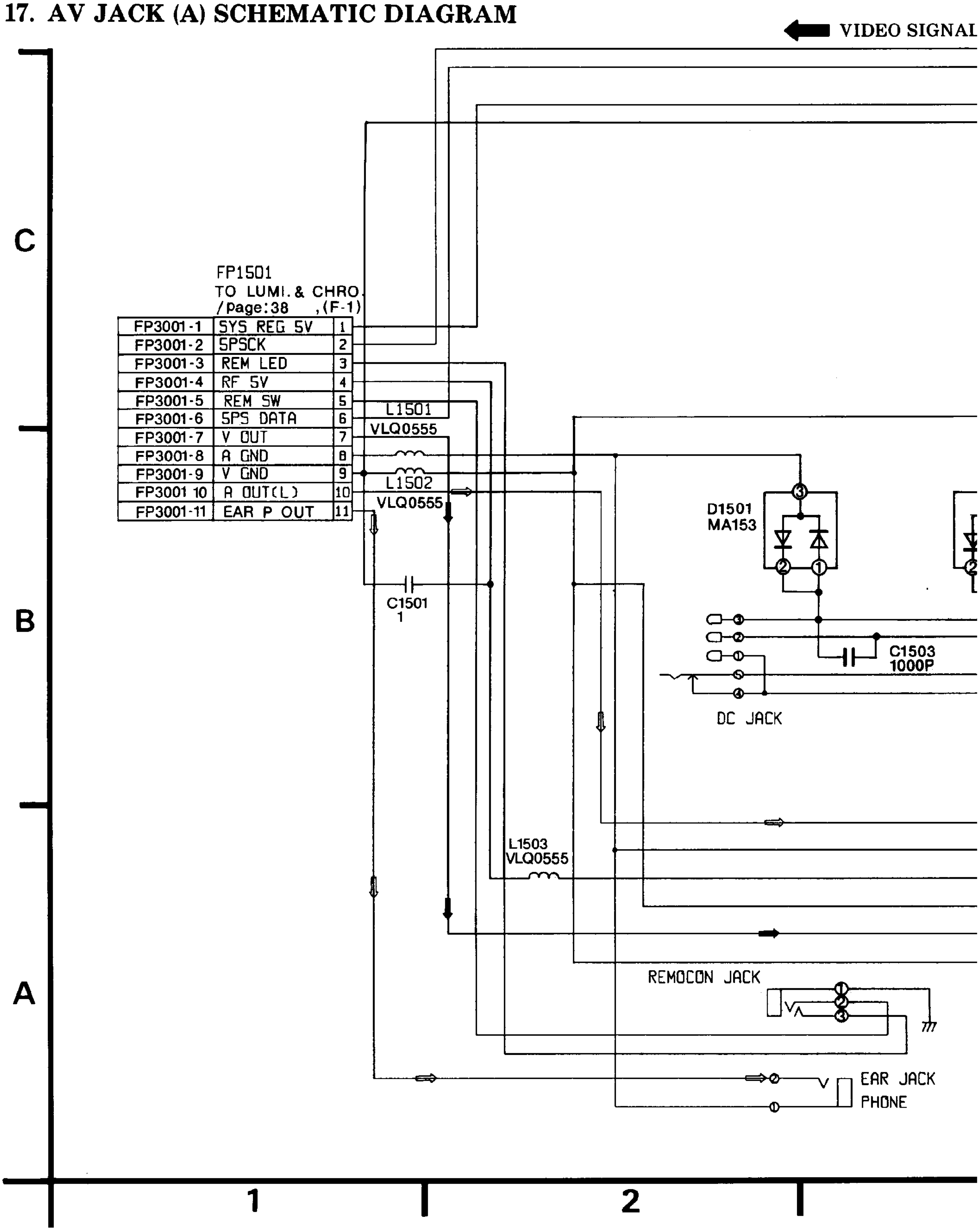
SUB SERVO Section	
Transistor	
Q2101	B-11
Integrated Circuit	
IC2101	B-14
IC2102	A-14
IC2103	B-13
IC2104	B-13
Test Point	
CL2101	B-9
TL2101	B-11
Connector	
FP2101	A-9
FP2102	A-11

ADDRESS INFORMATION

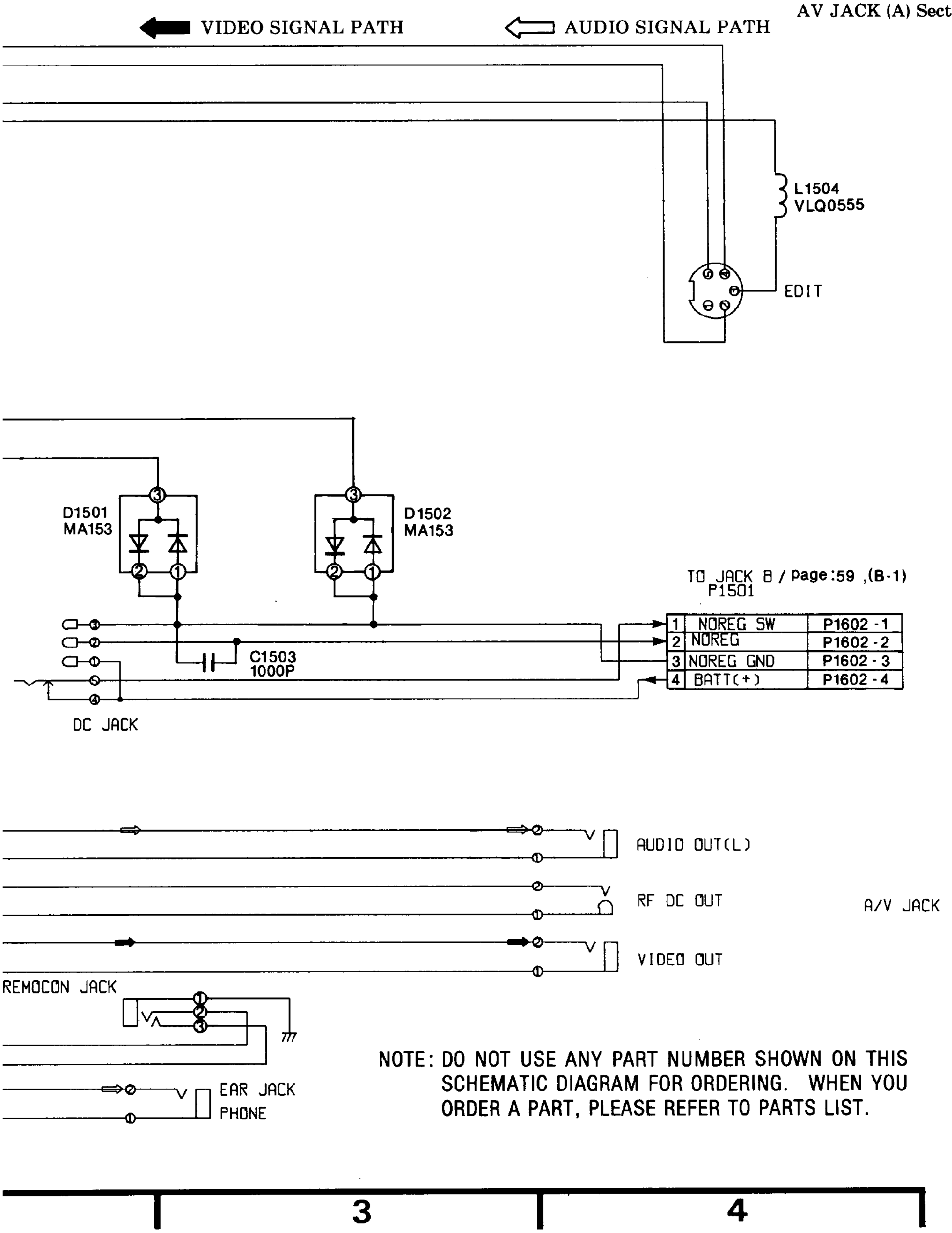
VITC Section	
Transistor	
Q3805	B-2
Q3806	A-2
Q3807	B-2
Q3808	C-22
Transistor & Resistor	
QR3804	C-21
QR3805	B-21
QR3806	B-2
QR3807	C-22
Test Point	
CL3801	A-1
Integrated Circuit	
IC3804	A-2
Adjustment	
VR3802	A-2

ADDRESS INFORMATION

17. AV JACK (A) SCHEMATIC DIAGRAM

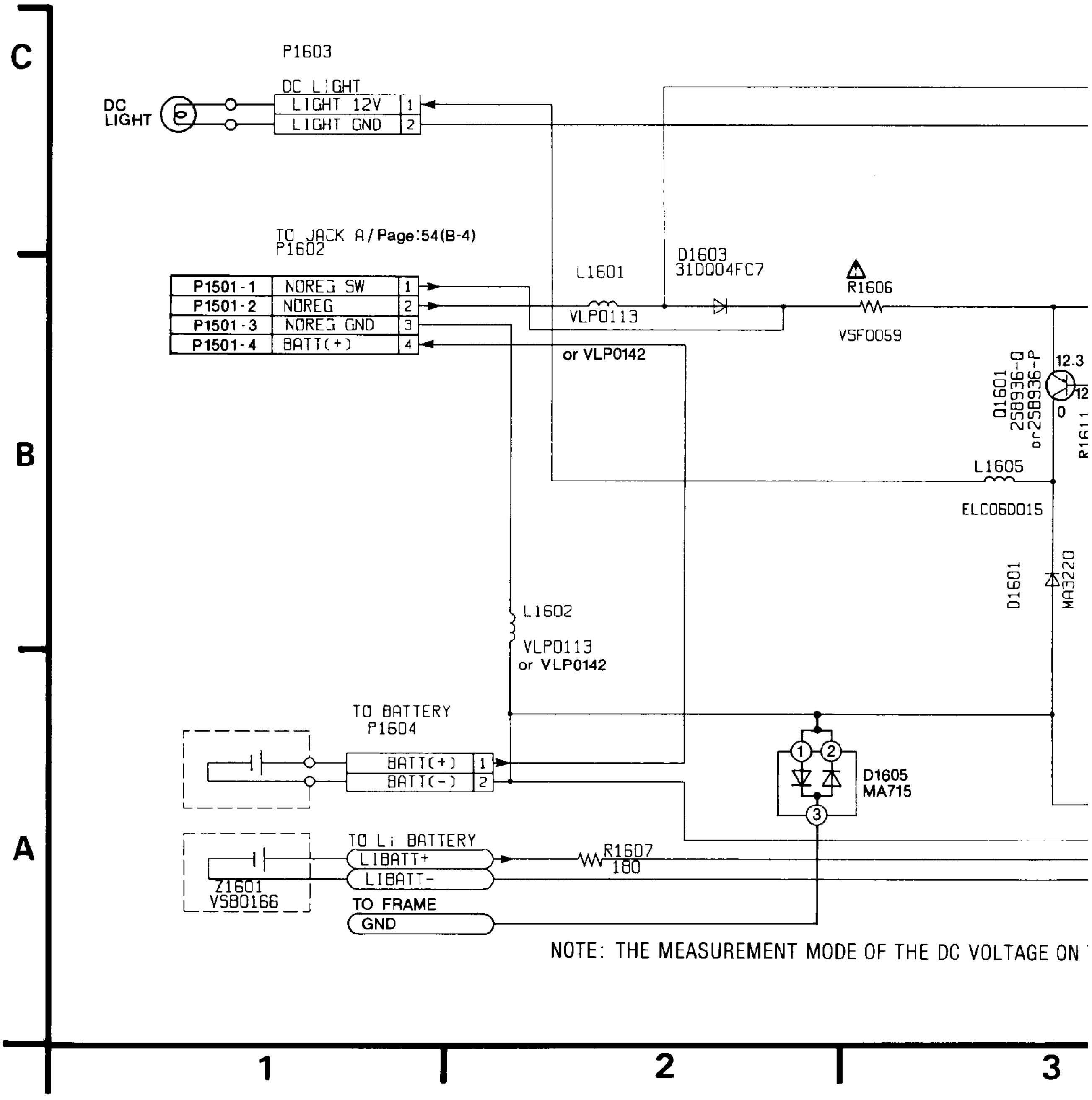

VIDEO SIGNAL
FP1501
TO LUMI.& CHRO.
/Page:38 ,(F-1)
FP3001-1 SYS REG 5V 1
FP3001-2 SPSCK 2
FP3001-3 REM LED 3
FP3001-4 RF 5V 4
FP3001-5 REM SW 5
FP3001-6 SPS DATA 6
FP3001-7 V OUT 7
FP3001-8 A GND 8
FP3001-9 V GND 9
FP3001 10 A OUT(L) 10
FP3001-11 EAR P OUT 11
L1501
VLQ0555
L1502
VLQ0555
C1501
1
D1501
MA153
C1503
1000P
DC JACK
L1503
VLQ0555
REMOCON JACK
EAR JACK
PHONE
C
B
A
1
2

AV JACK (A) Section

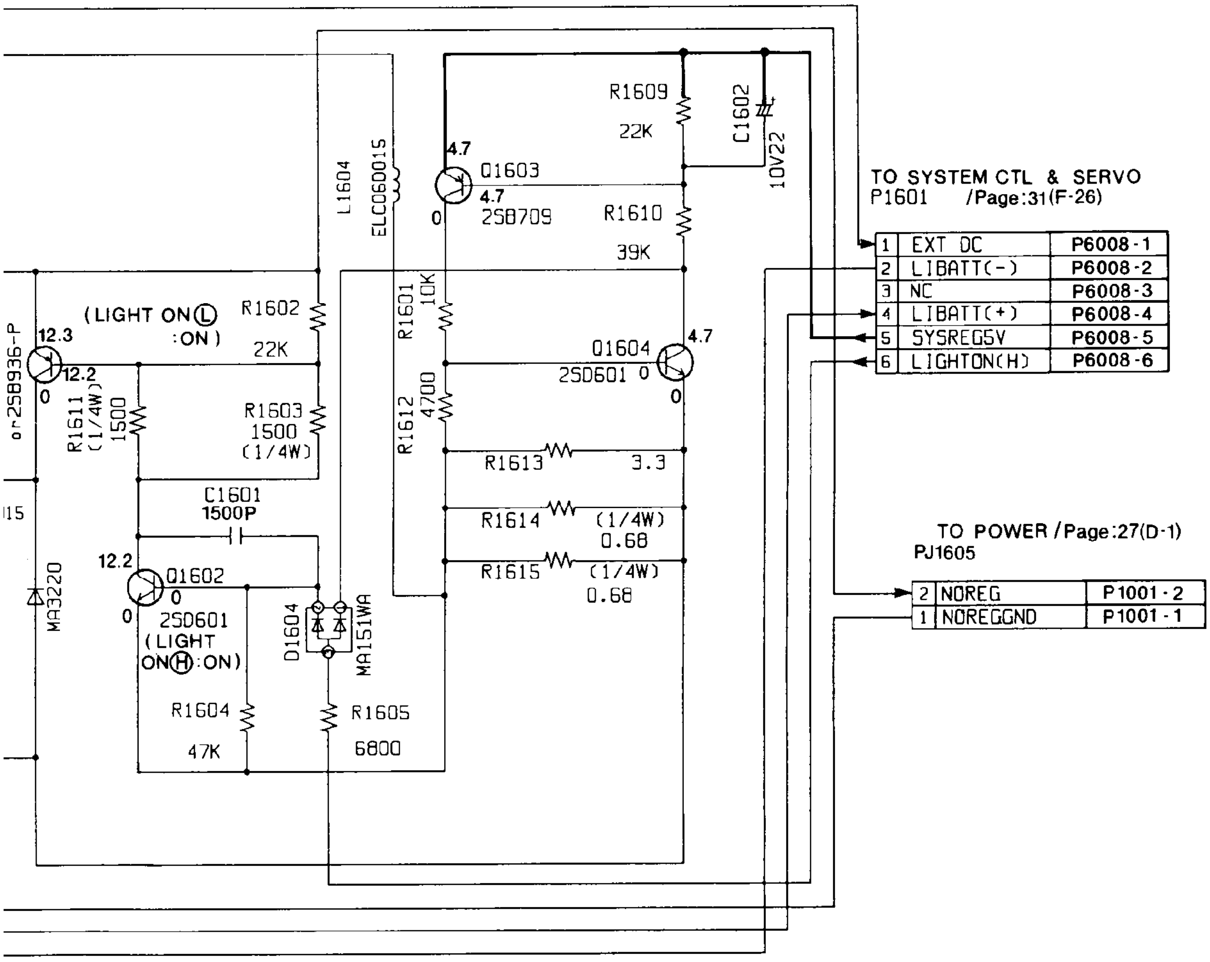

VIDEO SIGNAL PATH
AUDIO SIGNAL PATH
L1504
VLQ0555
EDIT
D1501
MA153
D1502
MA153
C1503
1000P
DC JACK
TO JACK B / Page:59 ,(B-1)
P1501
1 NOREG SW P1602-1
2 NOREG P1602-2
3 NOREG GND P1602-3
4 BATT(+) P1602-4
AUDIO OUT(L)
RF DC OUT
VIDEO OUT
A/V JACK
REMOCON JACK
EAR JACK
PHONE
3
4

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

19. AV JACK (B) SCHEMATIC DIAGRAM


C
B
A
1
2
3
P1603
DC LIGHT
DC
LIGHT
LIGHT 12V
LIGHT GND
1
2
TO JACK A / Page:54(B-4)
P1602
P1501-1
P1501-2
P1501-3
P1501-4
NOREG SW
NOREG
NOREG GND
BATT(+)
1
2
3
4
L1601
VLP0113
or VLP0142
D1603
31DQ04FC7
R1606
VSF0059
Q1601
2SB936-Q
or2SB936-P
12.3
12
0
R1611
L1605
ELC06D015
D1601
MA3220
L1602
VLP0113
or VLP0142
TO BATTERY
P1604
BATT(+)
BATT(-)
1
2
D1605
MA715
①
②
③
TO Li BATTERY
LIBATT+
LIBATT-
R1607
180
Z1601
VSB0166
TO FRAME
GND

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON

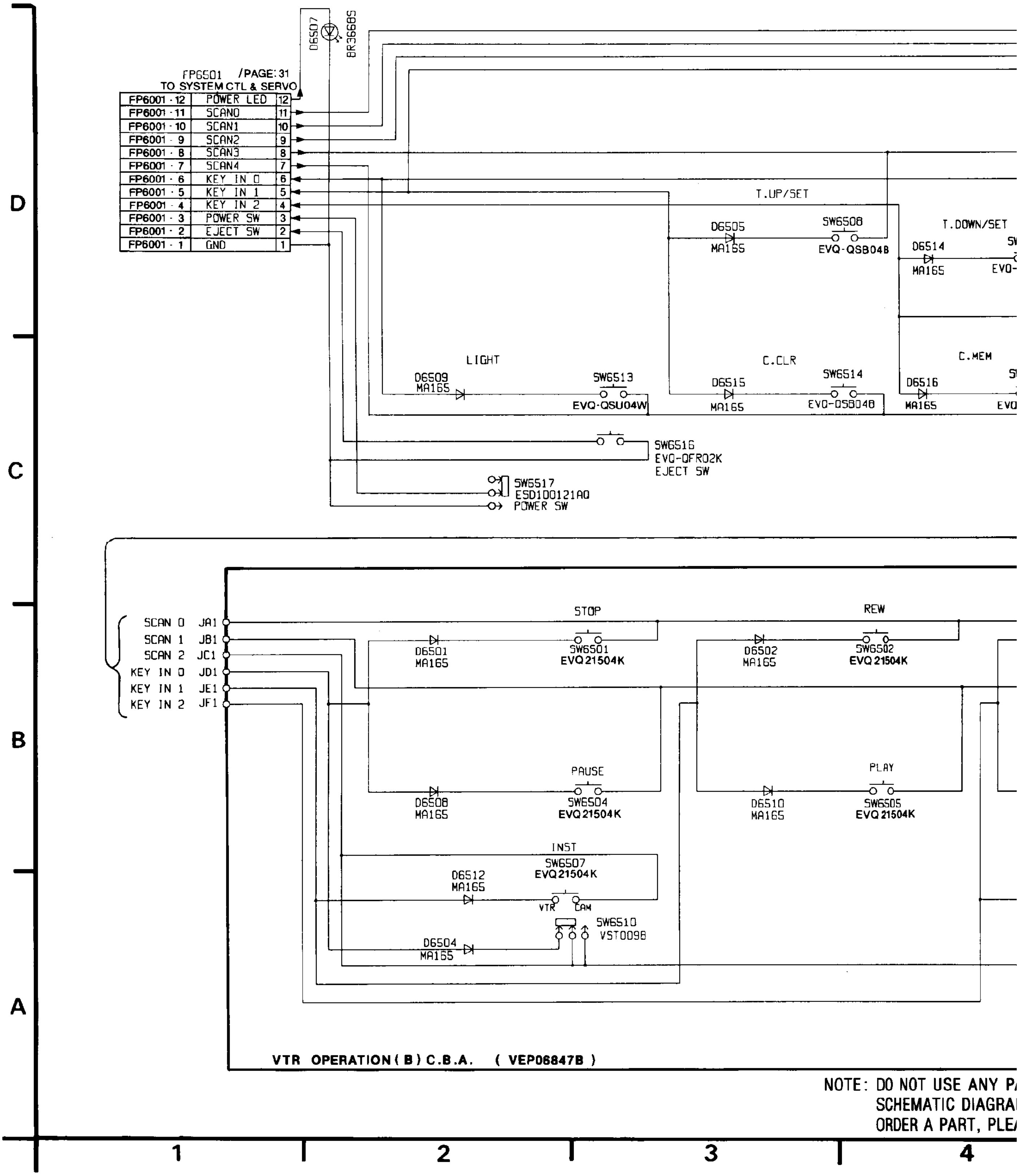

R1609
22K
C1602
10V22
4.7
Q1603
4.7
0
2SB709
R1610
39K
L1604
ELC06D015
TO SYSTEM CTL & SERVO
P1601 /Page:31(F-26)
1 EXT DC P6008-1
2 LIBATT(-) P6008-2
3 NC P6008-3
4 LIBATT(+) P6008-4
5 SYSREG5V P6008-5
6 LIGHTON(H) P6008-6
(LIGHT ON(L) :ON)
R1602
22K
R1601
10K
Q1604
2SD601
4.7
0
0
12.3
12.2
0
2SB936-P
R1611 (1/4W) 1500
R1603
1500
(1/4W)
R1612
4700
R1613 3.3
R1614 (1/4W) 0.68
R1615 (1/4W) 0.68
C1601
1500P
115
MA3220
12.2
Q1602
0
0
2SD601
(LIGHT ON(H):ON)
D1604
MA151WA
R1604
47K
R1605
6800
TO POWER /Page:27(D-1)
PJ1605
2 NOREG P1001-2
1 NOREGGND P1001-1

GE ON THIS DIAGRAM IS STOP MODE.

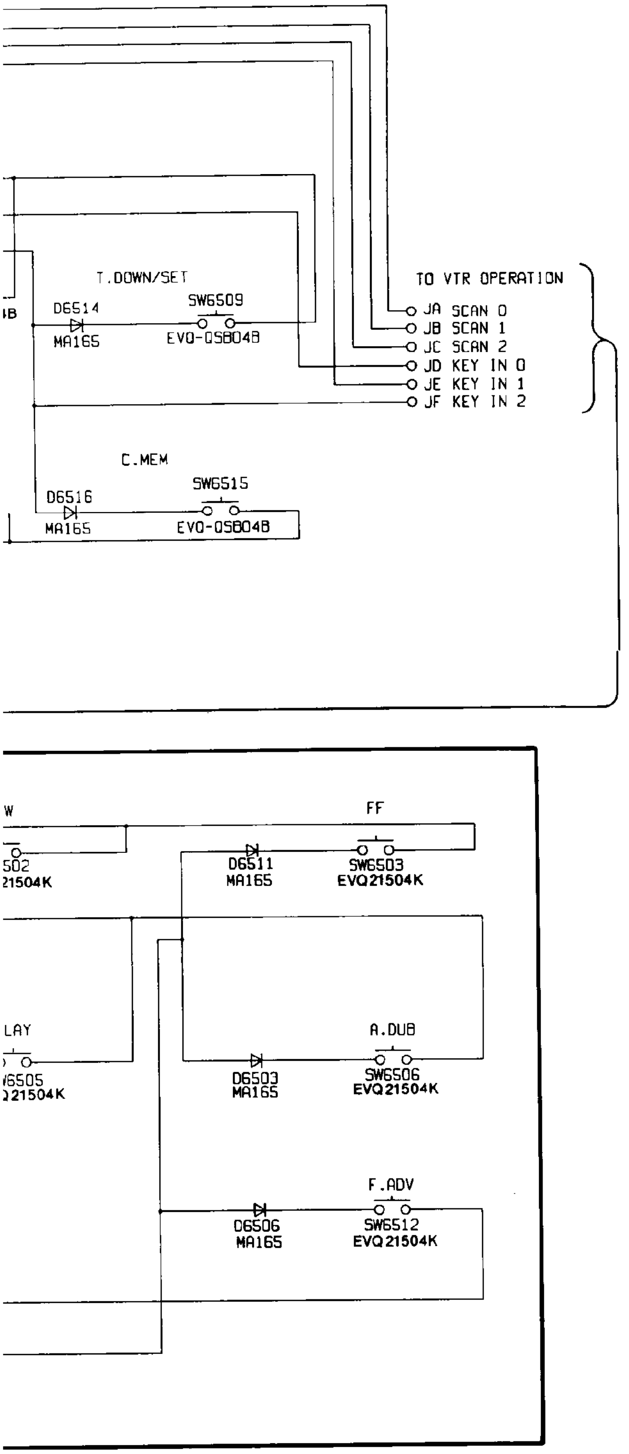
NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

3 4 5

21. VTR OPERATION SCHEMATIC DIAGRAM


D6507
BR3668S
FP6501 /PAGE: 31
TO SYSTEM CTL & SERVO
FP6001 · 12 POWER LED 12
FP6001 · 11 SCAN0 11
FP6001 · 10 SCAN1 10
FP6001 · 9 SCAN2 9
FP6001 · 8 SCAN3 8
FP6001 · 7 SCAN4 7
FP6001 · 6 KEY IN 0 6
FP6001 · 5 KEY IN 1 5
FP6001 · 4 KEY IN 2 4
FP6001 · 3 POWER SW 3
FP6001 · 2 EJECT SW 2
FP6001 · 1 GND 1
T.UP/SET
D6505
MA165
SW6508
EVQ-QSB04B
T.DOWN/SET
D6514
MA165
SW
EVQ-
LIGHT
D6509
MA165
SW6513
EVQ-QSU04W
C.CLR
D6515
MA165
SW6514
EVQ-QSB04B
C.MEM
D6516
MA165
SW
EVQ
SW6516
EVQ-QFR02K
EJECT SW
SW6517
ESD1D0121AQ
POWER SW
SCAN 0 JA1
SCAN 1 JB1
SCAN 2 JC1
KEY IN 0 JD1
KEY IN 1 JE1
KEY IN 2 JF1
STOP
D6501
MA165
SW6501
EVQ21504K
REW
D6502
MA165
SW6502
EVQ21504K
PAUSE
D6508
MA165
SW6504
EVQ21504K
PLAY
D6510
MA165
SW6505
EVQ21504K
INST
SW6507
EVQ21504K
D6512
MA165
VTR
CAM
SW6510
VST0098
D6504
MA165
VTR OPERATION (B) C.B.A. (VEP06847B)
D
C
B
A
1
2
3
4

NOTE: DO NOT USE ANY P
SCHEMATIC DIAGRA
ORDER A PART, PLE

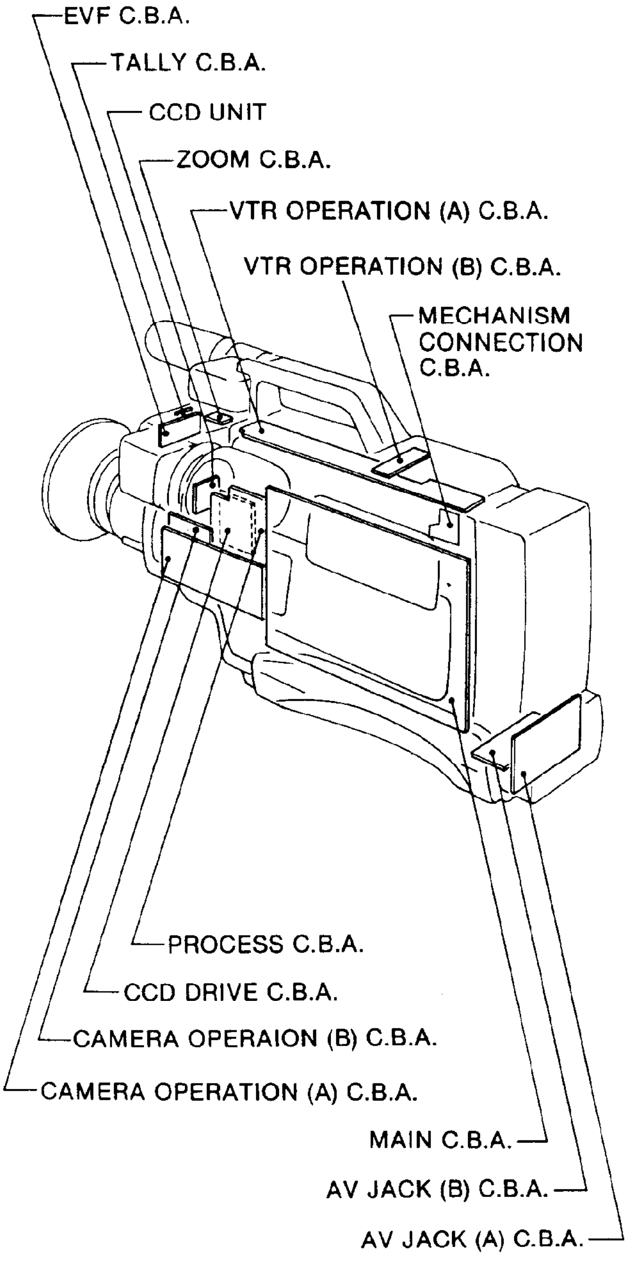

TO VTR OPERATION
JA SCAN 0
JB SCAN 1
JC SCAN 2
JD KEY IN 0
JE KEY IN 1
JF KEY IN 2
T.DOWN/SET
D6514
MA165
SW6509
EVQ-QS8048
IB
C.MEM
SW6515
D6516
MA165
EVQ-QS8048
W
502
21504K
FF
D6511
MA165
SW6503
EVQ21504K
LAY
6505
21504K
A.DUB
D6503
MA165
SW6506
EVQ21504K
F.ADV
D6506
MA165
SW6512
EVQ21504K

DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

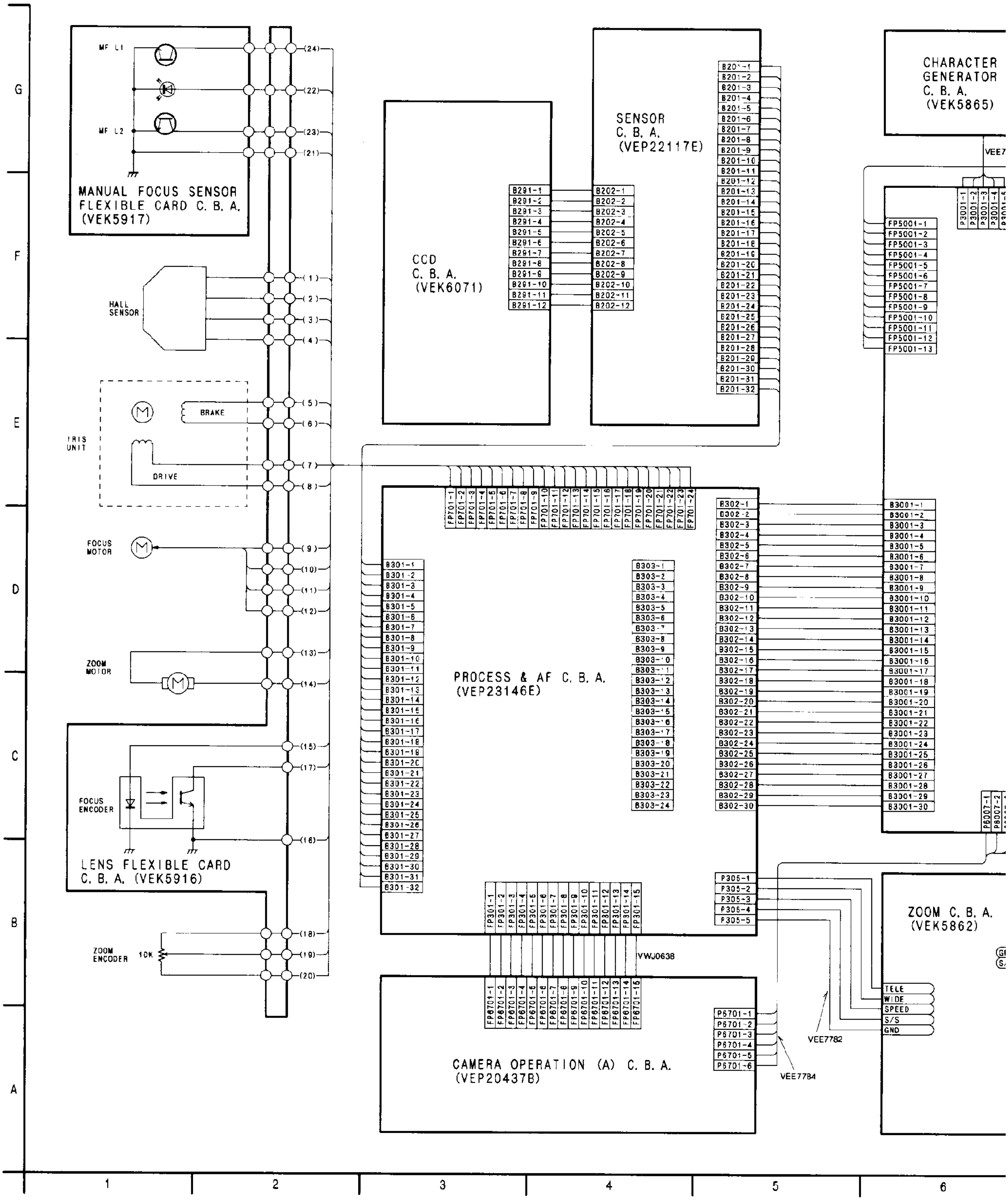
4

5

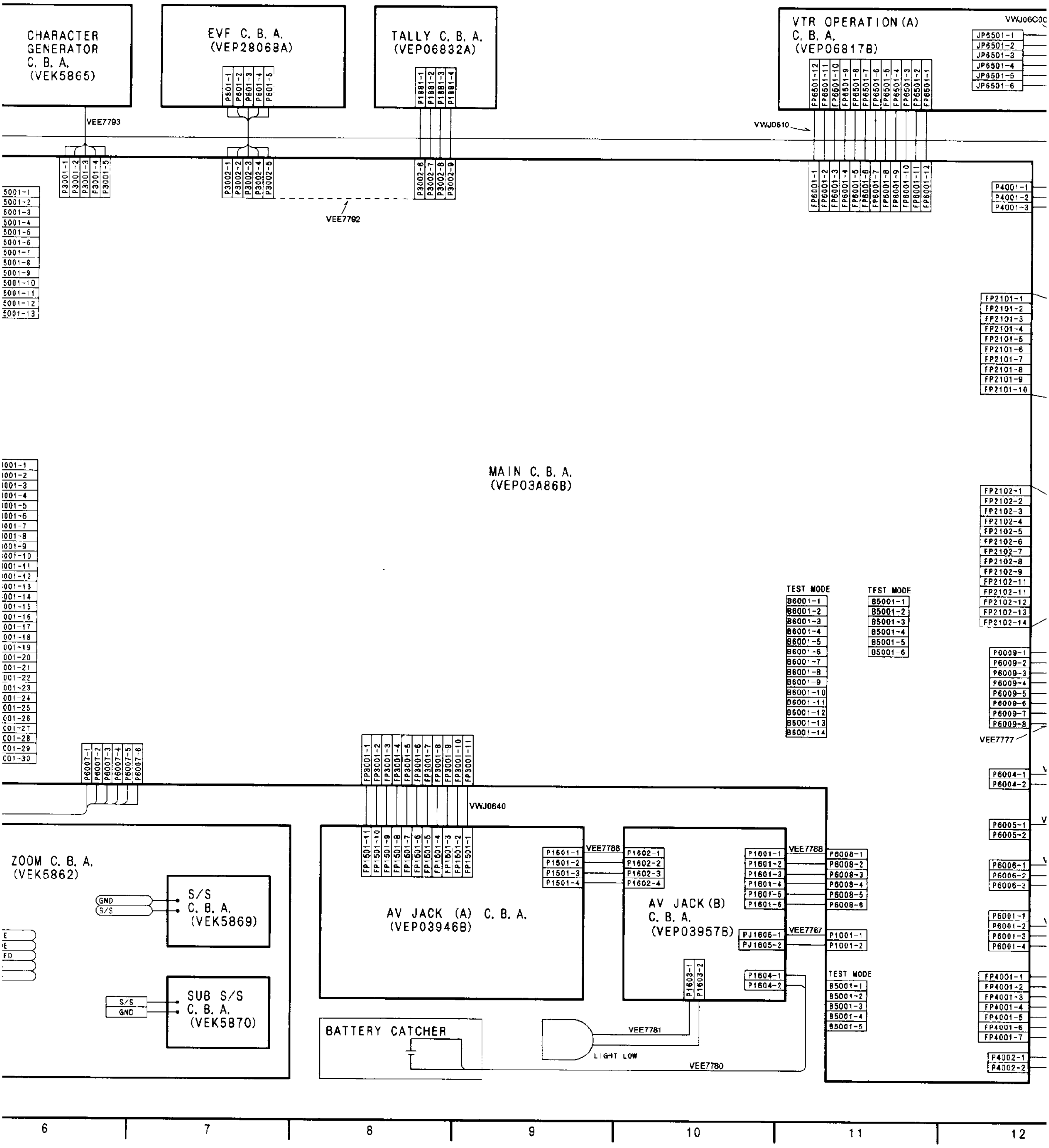
23. CIRCUIT BOARD LAYOUT

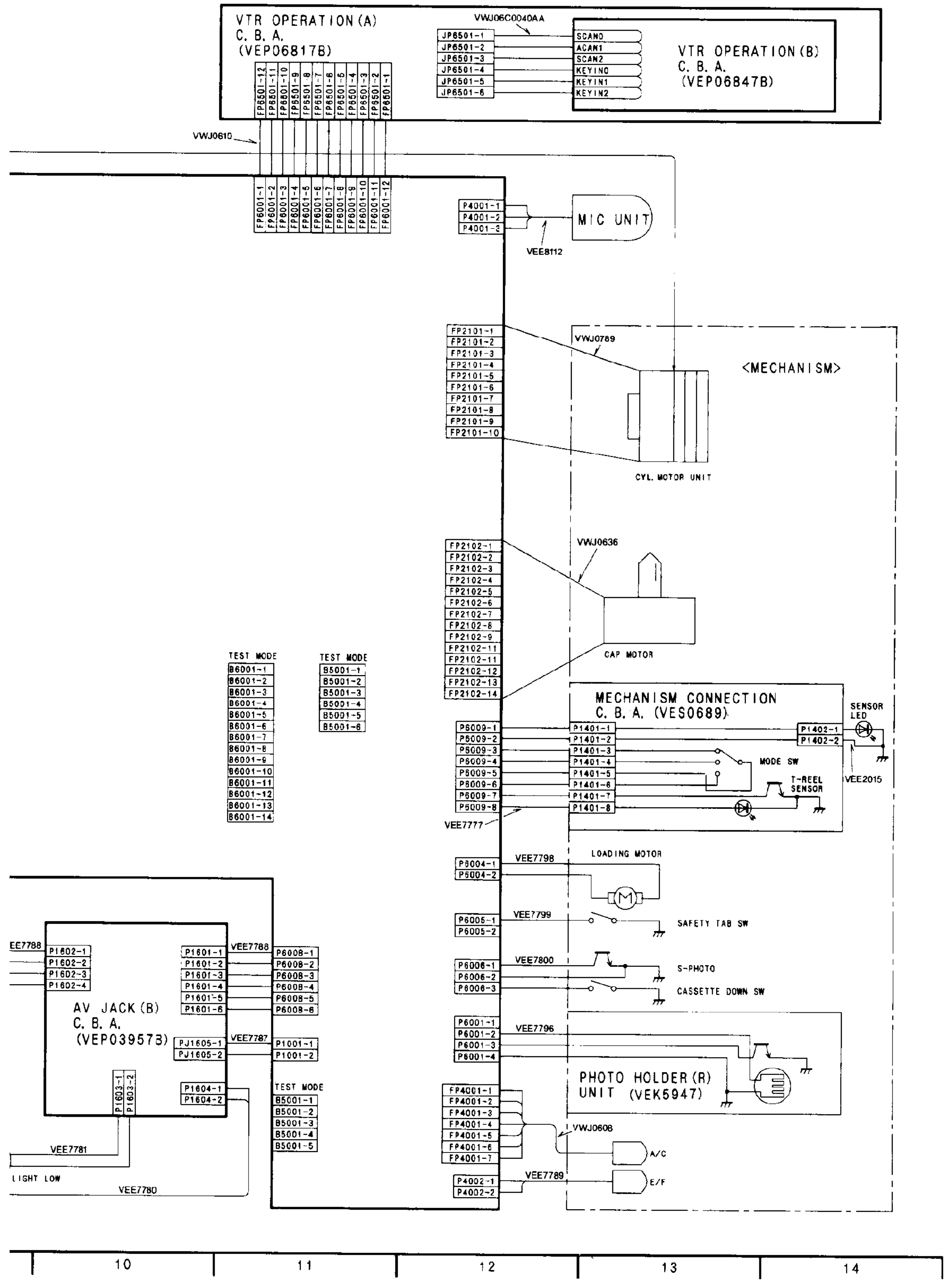

EVF C.B.A.
TALLY C.B.A.
CCD UNIT
ZOOM C.B.A.
VTR OPERATION (A) C.B.A.
VTR OPERATION (B) C.B.A.
MECHANISM CONNECTION C.B.A.
PROCESS C.B.A.
CCD DRIVE C.B.A.
CAMERA OPERAION (B) C.B.A.
CAMERA OPERATION (A) C.B.A.
MAIN C.B.A.
AV JACK (B) C.B.A.
AV JACK (A) C.B.A.

24. INTERCONNECTION SCHEMATIC DIAGRAM



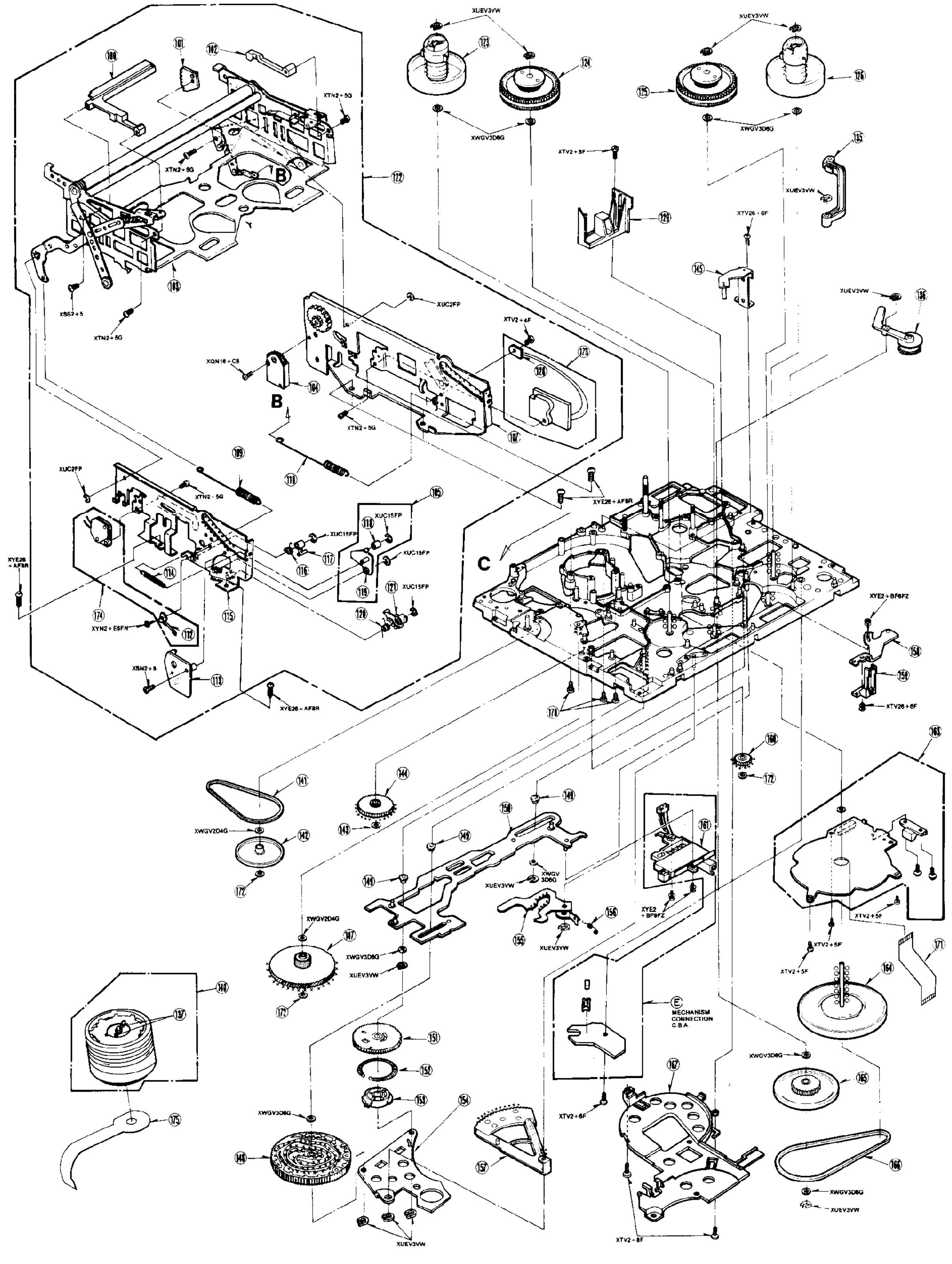
G
F
E
D
C
B
A
1
2
3
4
5
6
MF L1
MF L2
MANUAL FOCUS SENSOR FLEXIBLE CARD C. B. A. (VEK5917)
HALL SENSOR
BRAKE
IRIS UNIT
DRIVE
FOCUS MOTOR
ZOOM MOTOR
FOCUS ENCODER
LENS FLEXIBLE CARD C. B. A. (VEK5916)
ZOOM ENCODER
10K
CCD C. B. A. (VEK6071)
B291-1 … B291-12
B202-1 … B202-12
SENSOR C. B. A. (VEP22117E)
B201-1 … B201-32
CHARACTER GENERATOR C. B. A. (VEK5865)
VEE7
P3001-1
P3001-2
P3001-3
P3001-4
FP5001-1 … FP5001-13
PROCESS & AF C. B. A. (VEP23146E)
FP701-1 … FP701-24
B301-1 … B301-32
B303-1 … B303-24
B302-1 … B302-30
B3001-1 … B3001-30
P6007-1
P6007-2
P305-1 … P305-5
FP301-1 … FP301-15
VWJ0638
FP6701-1 … FP6701-15
P6701-1 … P6701-6
CAMERA OPERATION (A) C. B. A. (VEP20437B)
VEE7782
VEE7784
ZOOM C. B. A. (VEK5862)
TELE
WIDE
SPEED
S/S
GND


CHARACTER GENERATOR C. B. A. (VEK5865)
EVF C. B. A. (VEP28068A)
TALLY C. B. A. (VEP06832A)
VTR OPERATION (A) C. B. A. (VEP06817B)
VWJ06C0
JP6501-1
JP6501-2
JP6501-3
JP6501-4
JP6501-5
JP6501-6
P801-1
P801-2
P801-3
P801-4
P801-5
P1881-1
P1881-2
P1881-3
P1881-4
FP6501-12
FP6501-11
FP6501-10
FP6501-9
FP6501-8
FP6501-7
FP6501-6
FP6501-5
FP6501-4
FP6501-3
FP6501-2
FP6501-1
VEE7793
VWJ0610
P3001-1
P3001-2
P3001-3
P3001-4
P3001-5
P3002-1
P3002-2
P3002-3
P3002-4
P3002-5
P3002-6
P3002-7
P3002-8
P3002-9
VEE7792
FP6001-1
FP6001-2
FP6001-3
FP6001-4
FP6001-5
FP6001-6
FP6001-7
FP6001-8
FP6001-9
FP6001-10
FP6001-11
FP6001-12
P4001-1
P4001-2
P4001-3
5001-1
5001-2
5001-3
5001-4
5001-5
5001-6
5001-7
5001-8
5001-9
5001-10
5001-11
5001-12
5001-13
FP2101-1
FP2101-2
FP2101-3
FP2101-4
FP2101-5
FP2101-6
FP2101-7
FP2101-8
FP2101-9
FP2101-10
MAIN C. B. A. (VEP03A86B)
1001-1
1001-2
1001-3
1001-4
1001-5
1001-6
1001-7
1001-8
1001-9
1001-10
1001-11
1001-12
001-13
001-14
001-15
001-16
001-17
001-18
001-19
001-20
001-21
001-22
001-23
001-24
001-25
001-26
001-27
001-28
001-29
001-30
FP2102-1
FP2102-2
FP2102-3
FP2102-4
FP2102-5
FP2102-6
FP2102-7
FP2102-8
FP2102-9
FP2102-11
FP2102-11
FP2102-12
FP2102-13
FP2102-14
TEST MODE
B6001-1
B6001-2
B6001-3
B6001-4
B6001-5
B6001-6
B6001-7
B6001-8
B6001-9
B6001-10
B6001-11
B6001-12
B6001-13
B6001-14
TEST MODE
B5001-1
B5001-2
B5001-3
B5001-4
B5001-5
B5001-6
P6009-1
P6009-2
P6009-3
P6009-4
P6009-5
P6009-6
P6009-7
P6009-8
VEE7777
P6007-1
P6007-2
P6007-3
P6007-4
P6007-5
P6007-6
FP3001-1
FP3001-2
FP3001-3
FP3001-4
FP3001-5
FP3001-6
FP3001-7
FP3001-8
FP3001-9
FP3001-10
FP3001-11
VWJ0640
P6004-1
P6004-2
P6005-1
P6005-2
ZOOM C. B. A. (VEK5862)
S/S C. B. A. (VEK5869)
GND
S/S
SUB S/S C. B. A. (VEK5870)
S/S
GND
FP1501-11
FP1501-10
FP1501-9
FP1501-8
FP1501-7
FP1501-6
FP1501-5
FP1501-4
FP1501-3
FP1501-2
FP1501-1
AV JACK (A) C. B. A. (VEP03946B)
P1501-1
P1501-2
P1501-3
P1501-4
VEE7786
P1602-1
P1602-2
P1602-3
P1602-4
AV JACK (B) C. B. A. (VEP03957B)
P1601-1
P1601-2
P1601-3
P1601-4
P1601-5
P1601-6
VEE7788
P6008-1
P6008-2
P6008-3
P6008-4
P6008-5
P6008-6
P6006-1
P6006-2
P6006-3
P6001-1
P6001-2
P6001-3
P6001-4
PJ1605-1
PJ1605-2
VEE7787
P1001-1
P1001-2
P1603-1
P1603-2
P1604-1
P1604-2
TEST MODE
B5001-1
B5001-2
B5001-3
B5001-4
B5001-5
FP4001-1
FP4001-2
FP4001-3
FP4001-4
FP4001-5
FP4001-6
FP4001-7
BATTERY CATCHER
VEE7781
LIGHT LOW
VEE7780
P4002-1
P4002-2
6
7
8
9
10
11
12

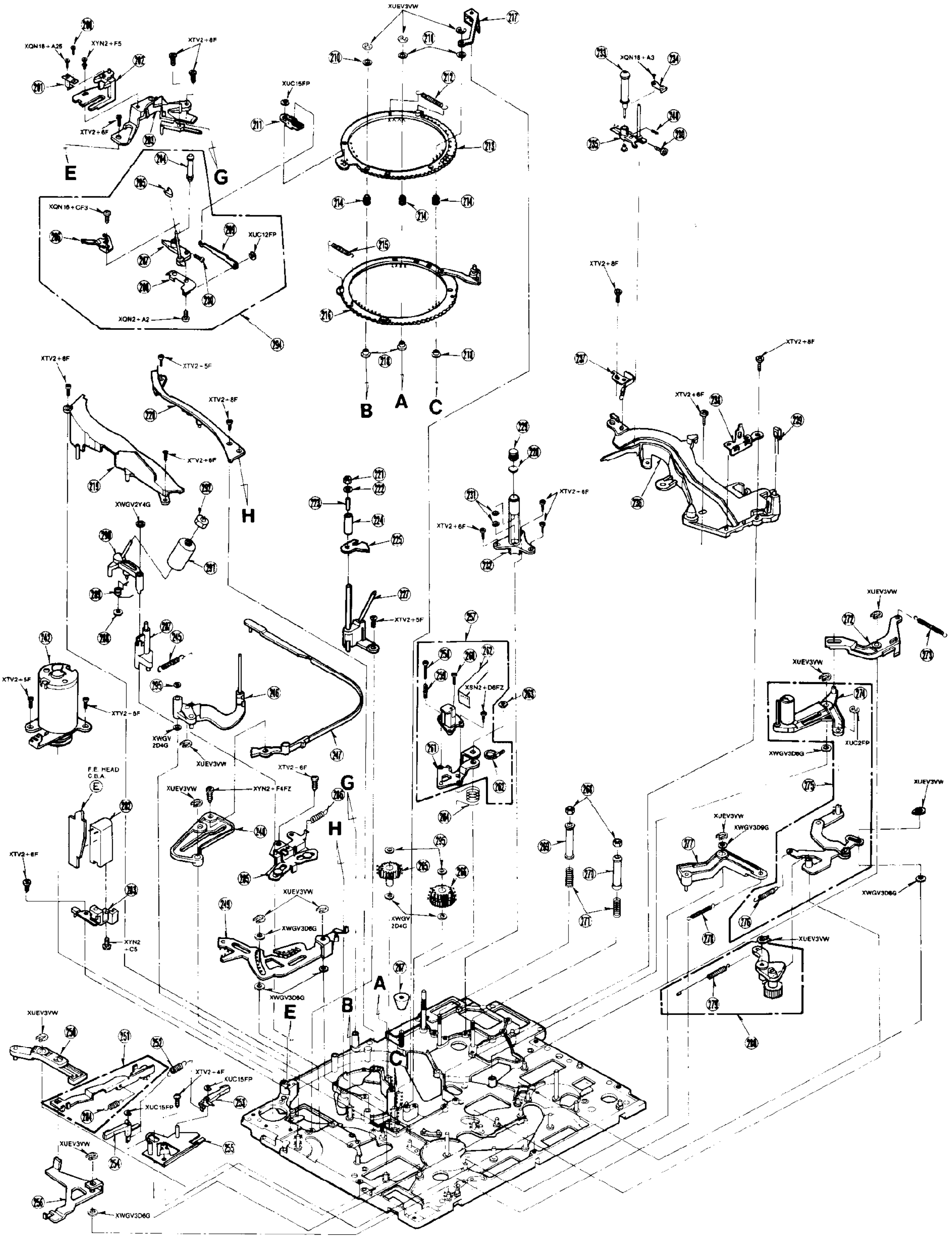

VTR OPERATION (A) C. B. A. (VEP06817B)
VWJ06C0040AA
JP6501-1
JP6501-2
JP6501-3
JP6501-4
JP6501-5
JP6501-6
SCAN0
ACAN1
SCAN2
KEYIN0
KEYIN1
KEYIN2
VTR OPERATION (B) C. B. A. (VEP06847B)
FP6501-12
FP6501-11
FP6501-10
FP6501-9
FP6501-8
FP6501-7
FP6501-6
FP6501-5
FP6501-4
FP6501-3
FP6501-2
FP6501-1
VWJ0610
FP6001-1
FP6001-2
FP6001-3
FP6001-4
FP6001-5
FP6001-6
FP6001-7
FP6001-8
FP6001-9
FP6001-10
FP6001-11
FP6001-12
P4001-1
P4001-2
P4001-3
MIC UNIT
VEE8112
FP2101-1
FP2101-2
FP2101-3
FP2101-4
FP2101-5
FP2101-6
FP2101-7
FP2101-8
FP2101-9
FP2101-10
VWJ0789
<MECHANISM>
CYL. MOTOR UNIT
FP2102-1
FP2102-2
FP2102-3
FP2102-4
FP2102-5
FP2102-6
FP2102-7
FP2102-8
FP2102-9
FP2102-11
FP2102-11
FP2102-12
FP2102-13
FP2102-14
VWJ0636
CAP MOTOR
TEST MODE
B6001-1
B6001-2
B6001-3
B6001-4
B6001-5
B6001-6
B6001-7
B6001-8
B6001-9
B6001-10
B6001-11
B6001-12
B6001-13
B6001-14
TEST MODE
B5001-1
B5001-2
B5001-3
B5001-4
B5001-5
B5001-6
MECHANISM CONNECTION C. B. A. (VES0689)
P6009-1
P6009-2
P6009-3
P6009-4
P6009-5
P6009-6
P6009-7
P6009-8
P1401-1
P1401-2
P1401-3
P1401-4
P1401-5
P1401-6
P1401-7
P1401-8
P1402-1
P1402-2
SENSOR LED
VEE2015
MODE SW
T-REEL SENSOR
VEE7777
LOADING MOTOR
VEE7798
P6004-1
P6004-2
M
VEE7799
P6005-1
P6005-2
SAFETY TAB SW
VEE7800
P6006-1
P6006-2
P6006-3
S-PHOTO
CASSETTE DOWN SW
VEE7796
P6001-1
P6001-2
P6001-3
P6001-4
PHOTO HOLDER (R) UNIT (VEK5947)
FP4001-1
FP4001-2
FP4001-3
FP4001-4
FP4001-5
FP4001-6
FP4001-7
VWJ0608
A/C
VEE7789
P4002-1
P4002-2
E/F
EE7788
P1602-1
P1602-2
P1602-3
P1602-4
AV JACK (B) C. B. A. (VEP03957B)
P1601-1
P1601-2
P1601-3
P1601-4
P1601-5
P1601-6
VEE7788
P6008-1
P6008-2
P6008-3
P6008-4
P6008-5
P6008-6
PJ1605-1
PJ1605-2
VEE7787
P1001-1
P1001-2
P1603-1
P1603-2
P1604-1
P1604-2
TEST MODE
B5001-1
B5001-2
B5001-3
B5001-4
B5001-5
VEE7781
LIGHT LOW
VEE7780
10
11
12
13
14

25. EXPLODED VIEWS & PARTS LISTS

(1) VTR MECHANISM SECTION (1)

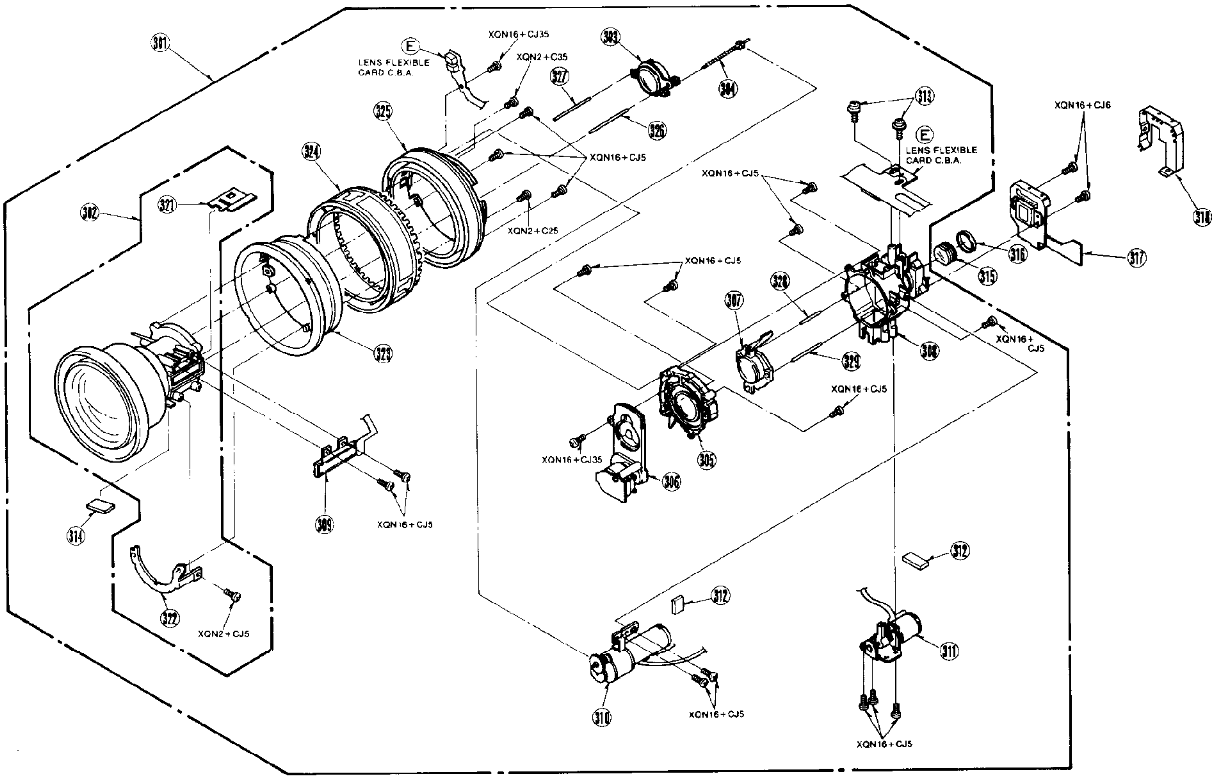

(100)
(101)
(102)
XTN2+5G
XTN2+5G
B
(122)
(103)
XSS2+5
XTN2+5G
XUEV3VW
(123)
(124)
XWGV3D6G
XUEV3VW
(125)
(126)
XWGV3D6G
XTV2+8F
(129)
(135)
XUEV3VW
XTV26+6F
(145)
XUEV3VW
(136)
XUC2FP
XTV2+4F
(173)
(128)
XQN16+C8
(104)
B
XTN2+5G
(107)
(109)
(110)
XUC2FP
XTN2-5G
(105)
XUC15FP
(118)
XUC15FP
XUC15FP
(117)
(116)
(119)
(121)
XUC15FP
(120)
XYE26+AF8R
XYE26+AF8R
C
(114)
(174)
XYN2+E6FN
(112)
(115)
XSN2+8
(113)
XYE26+AF8R
XYE2+BF6FZ
(158)
(159)
XTV26+6F
(170)
(160)
(172)
(163)
(141)
(144)
(143)
(149)
(150)
XWGV2D4G
(142)
(149)
(161)
(149)
XUEV3VW
XWGV3D6G
(156)
(155)
XUEV3VW
XYE2+BF9FZ
XTV2+5F
(172)
XWGV2D4G
(147)
XWGV3D6G
XUEV3VW
XTV2+5F
XTV2+5F
(171)
(172)
(164)
(140)
(137)
E
MECHANISM CONNECTION C.B.A.
(151)
XWGV3D6G
(152)
(165)
(153)
(167)
XWGV3D6G
(154)
XTV2+8F
(175)
(148)
(157)
(166)
XWGV3D6G
XUEV3VW
XUEV3VW
XTV2+8F

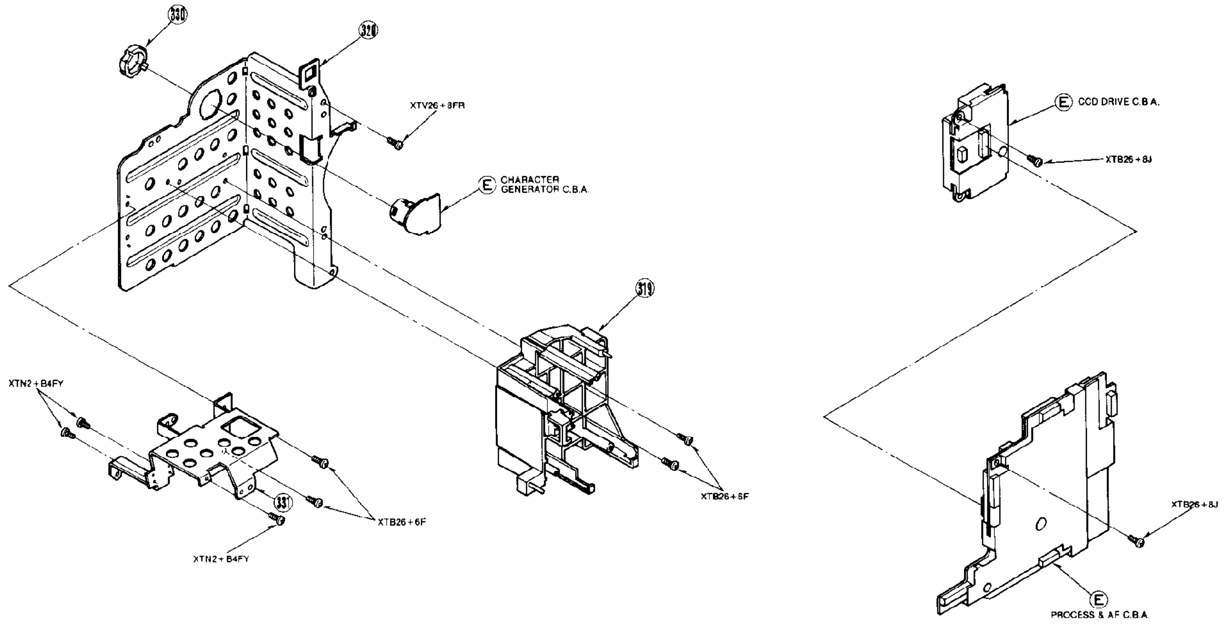
(2) VTR MECHANISM SECTION (2)



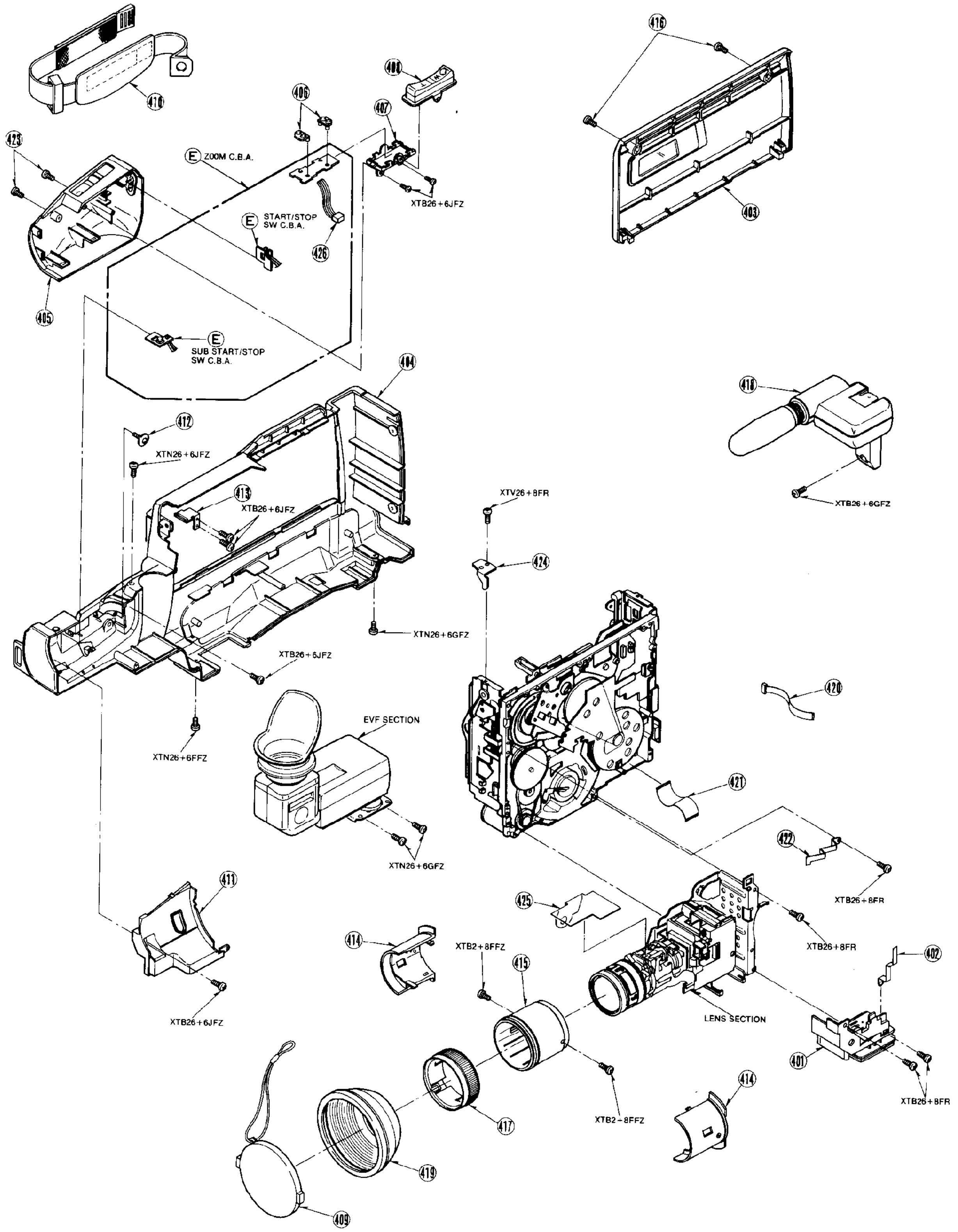
200
XQN18+A25
XYN2+F5
201
202
XTV2+8F
XTV2+6F
203
E
G
XUC15FP
211
XUEV3VW
210
217
212
213
214
215
216
218
B
A
C
204
205
XQN18+CF3
206
207
208
209
XUC12FP
230
XQN2+A2
294
233
XQN18+A3
234
235
240
238
XTV2+8F
237
XTV2+6F
236
239
XTV2+8F
XTV2-5F
220
219
H
XWGV2Y4G
292
290
291
289
288
221
222
223
224
225
227
XTV2+5F
229
228
231
XTV2+6F
XTV2-6F
232
242
XTV2+5F
XTV2-5F
287
245
295
246
XWGV
2D4G
XUEV3VW
247
257
258
259
260
262
XSN2+D6FZ
263
261
F.E. HEAD
C.B.A.
Ⓔ
282
XTV2+8F
283
XYN2
+C5
XUEV3VW
XYN2+F4FZ
248
XTV2-6F
286
285
264
295
265
266
XWGV
2D4G
249
XWGV3D6G
267
268
269
270
271
272
273
274
XUC2FP
XWGV3D6G
275
XJEV3VW
XWGV3D9G
277
276
278
279
280
XUEV3VW
250
251
252
XTV2-4F
XUC15FP
253
284
254
255
256
XWGV3D6G

(3) CAMERA LENS SECTION


301
302
321
324
325
E
LENS FLEXIBLE CARD C.B.A.
XQN16+CJ35
XQN2+C35
327
303
304
326
XQN16+CJ5
XQN2+C25
313
E
LENS FLEXIBLE CARD C.B.A.
XQN16+CJ6
318
XQN16+CJ5
316
317
315
XQN16+CJ5
328
307
XQN16+CJ5
329
308
XQN16+CJ5
323
305
XQN16+CJ35
306
309
XQN16+CJ5
314
322
XQN2+CJ5
312
312
311
310
XQN16+CJ5
XQN16+CJ5

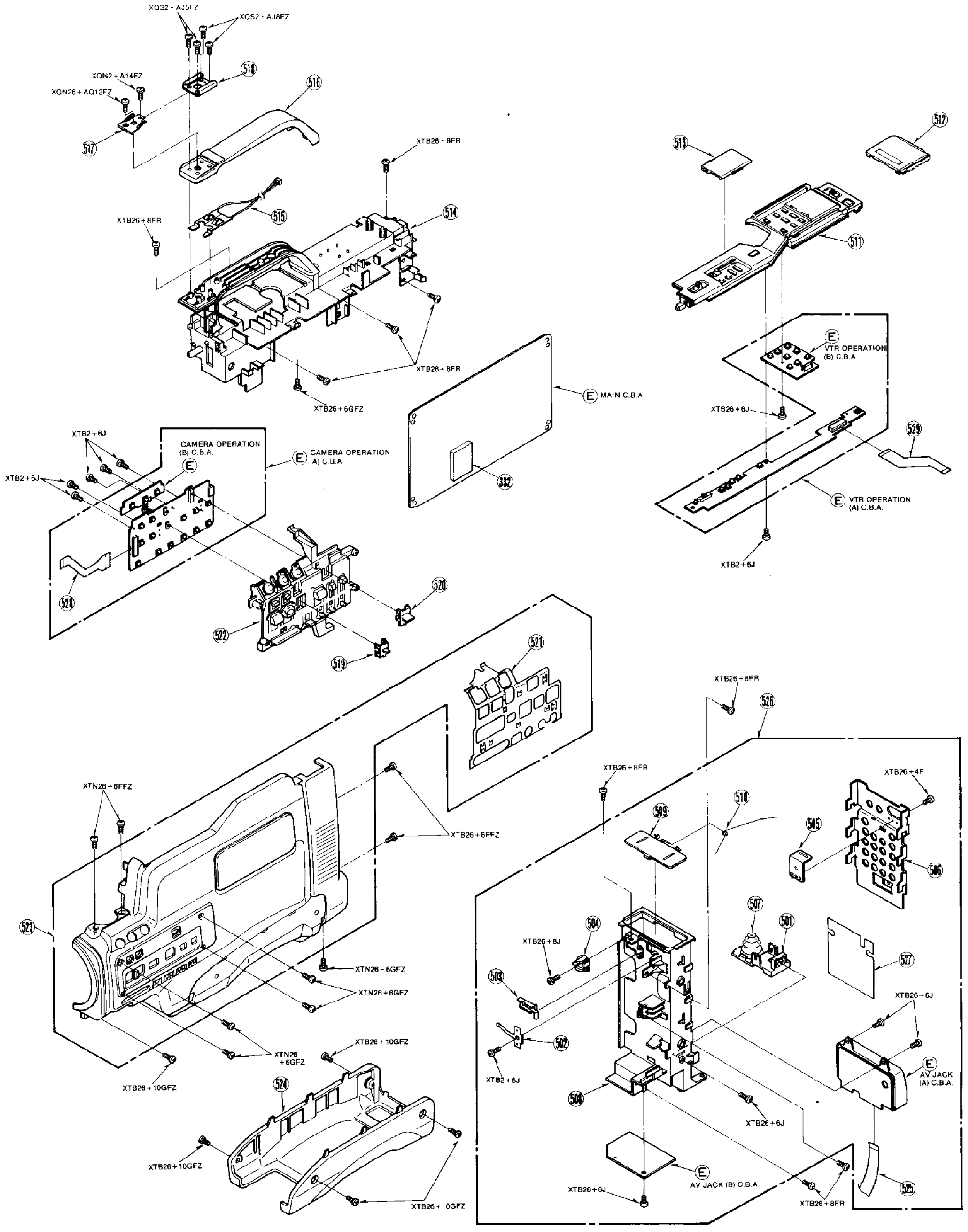

330
320
XTV26+8FR
E CHARACTER GENERATOR C.B.A.
E CCD DRIVE C.B.A.
XTB26+8J
319
XTN2+B4FY
XTB26+6F
331
XTN2+B4FY
XTB26+6F
XTB26+8J
E
PROCESS & AF C.B.A.

(4) FRAME & CASING PARTS SECTION (1)

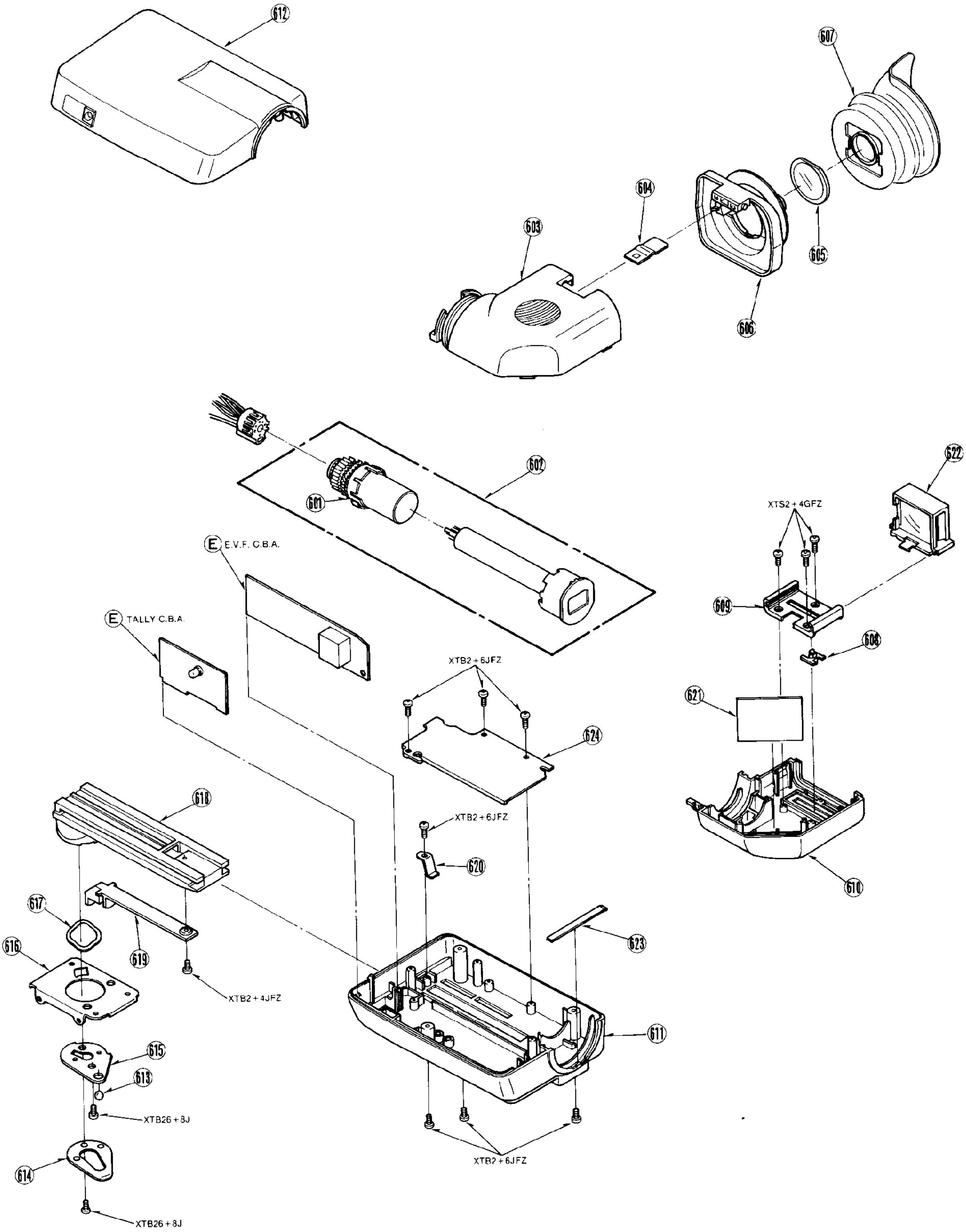


416
408
410
406
407
423
E ZOOM C.B.A.
E START/STOP SW C.B.A.
XTB26+6JFZ
426
403
405
E SUB START/STOP SW C.B.A.
404
418
412
XTN26+6JFZ
413
XTB26+6JFZ
XTV26+8FR
XTB26+6GFZ
424
XTN26+6GFZ
XTB26+5JFZ
420
EVF SECTION
XTN26+6FFZ
421
XTN26+6GFZ
422
XTB26+8FR
411
425
XTB26+8FR
414
XTB2+8FFZ
415
402
LENS SECTION
XTB26+6JFZ
401
417
XTB2-8FFZ
414
XTB26+8FR
419
409

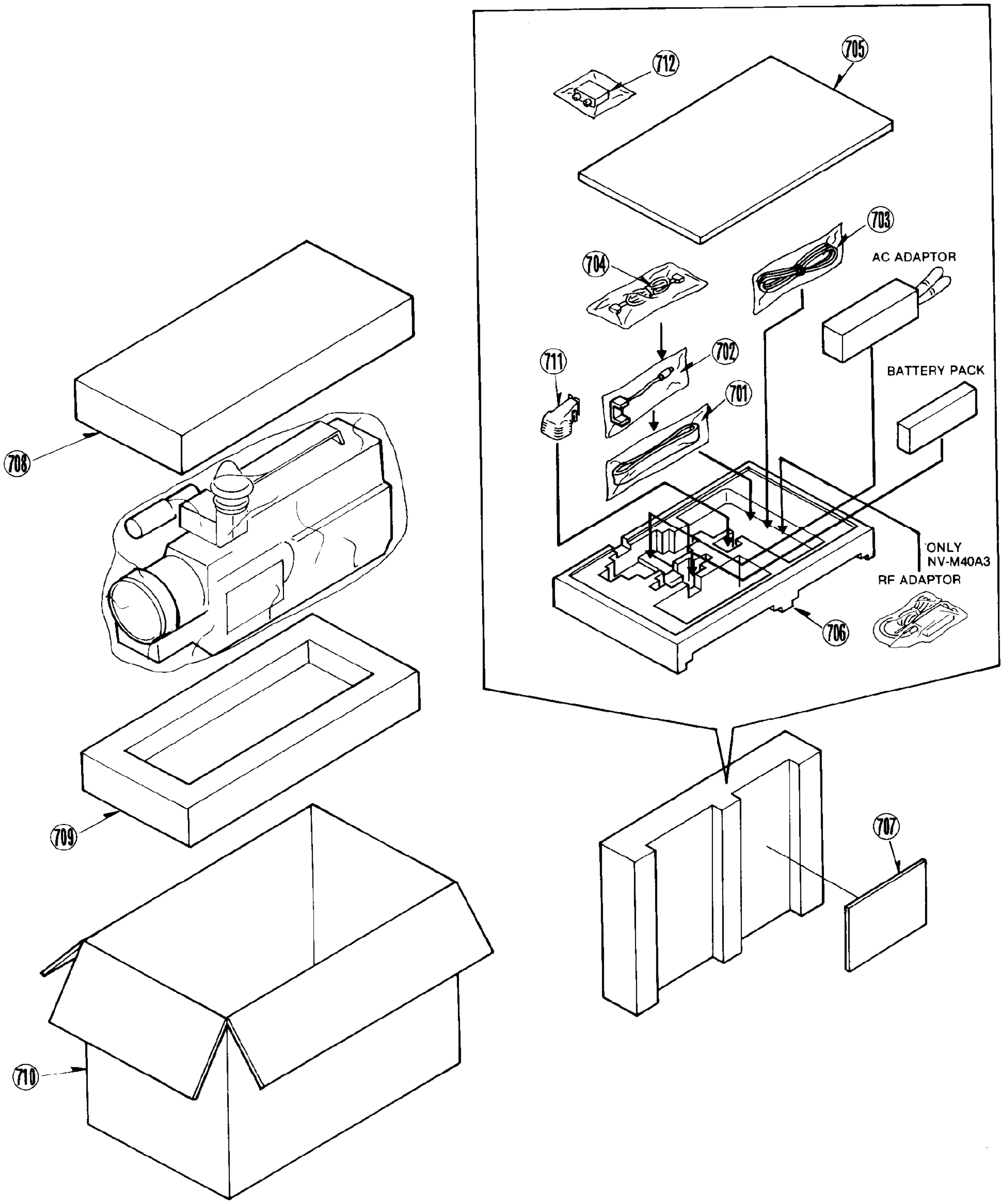
(5) FRAME & CASING PARTS SECTION (2)


XQS2 + AJ8FZ
XQS2 + AJ8FZ
518
XQN2 + A14FZ
XQN26 + AQ12FZ
516
517
XTB26 + 8FR
515
514
XTB26 + 8FR
XTB26 + 8FR
XTB26 + 6GFZ
513
512
511
E
VTR OPERATION
(B) C.B.A.
E MAIN C.B.A.
332
XTB26 + 6J
529
E VTR OPERATION
(A) C.B.A.
XTB2 + 6J
XTB2 + 6J
XTB2 + 6J
CAMERA OPERATION
(B) C.B.A.
E
E CAMERA OPERATION
(A) C.B.A.
528
520
522
519
521
XTN26 + 6FFZ
XTB26 + 6FFZ
523
XTN26 + 6GFZ
XTN26 + 6GFZ
XTN26
+ 6GFZ
XTB26 + 10GFZ
XTB26 + 10GFZ
524
XTB26 + 10GFZ
XTB26 + 10GFZ
XTB26 + 8FR
526
XTB26 + 8FR
510
509
XTB26 + 4F
505
506
XTB26 + 6J
504
507
501
503
527
502
XTB2 + 6J
XTB26 + 6J
E
AV JACK
(A) C.B.A.
508
XTB26 + 6J
E
AV JACK (B) C.B.A.
XTB26 + 6J
XTB26 + 8FR
525

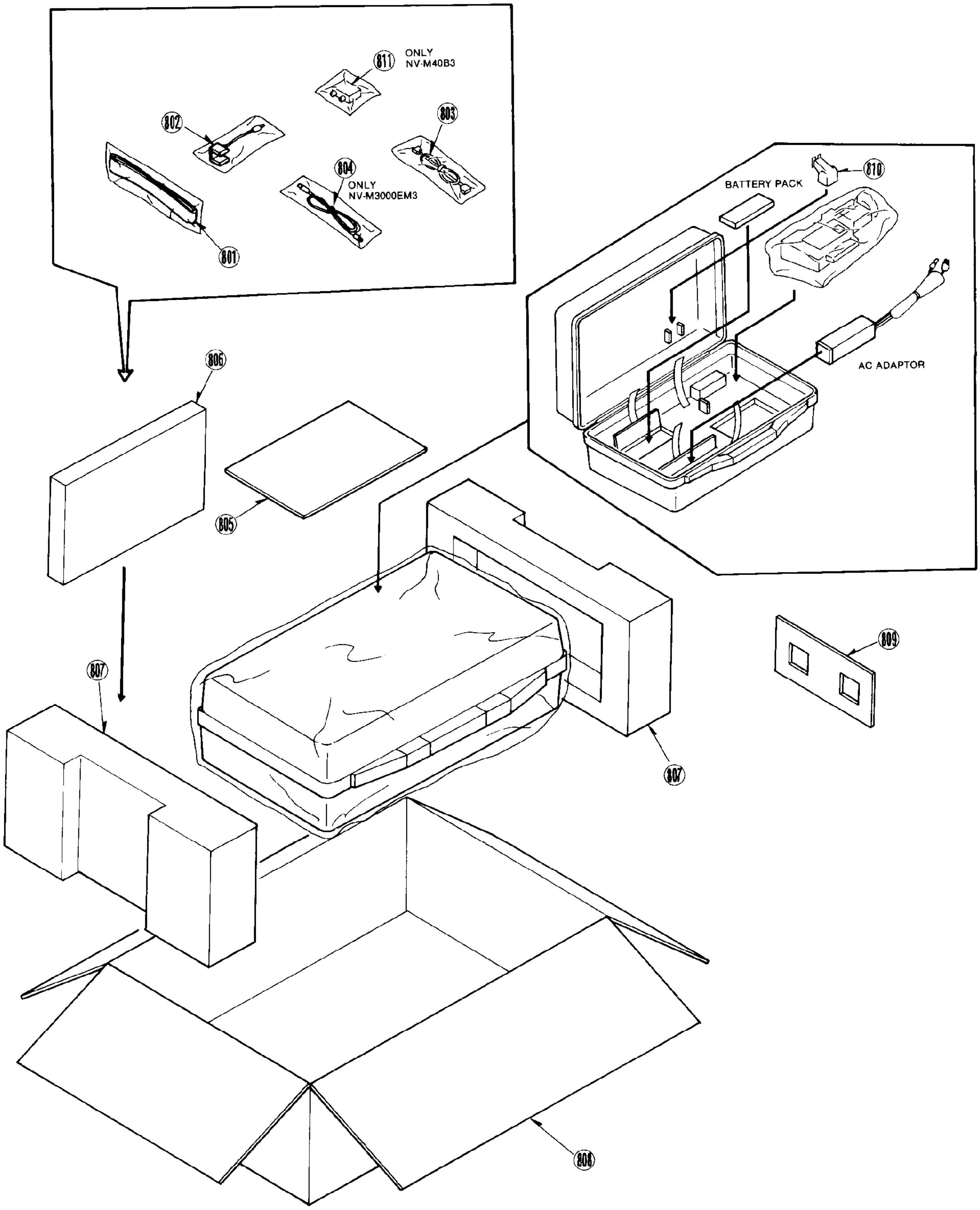
(6) EVF SECTION


612
607
604
603
605
606
602
601
622
XTS2 + 4GFZ
E E.V.F. C.B.A.
E TALLY C.B.A.
609
608
XTB2 + 6JFZ
621
624
618
XTB2 + 6JFZ
620
610
617
619
616
623
XTB2 + 4JFZ
611
615
613
XTB26 + 8J
614
XTB2 + 6JFZ
XTB26 + 8J

(7) PACKING PARTS & ACCESSORIES SECTION (NV-M40E3/A3, NV-M3000EN3, NV-M3300MC3)


712
705
703
AC ADAPTOR
704
702
711
701
BATTERY PACK
ONLY NV-M40A3
RF ADAPTOR
706
708
709
707
710

(8) PACKING PARTS & ACCESSORIES SECTION NV-M40B3 (NV-M3000EM3)


811
ONLY
NV-M40B3
802
803
804
ONLY
NV-M3000EM3
801
810
BATTERY PACK
AC ADAPTOR
806
805
807
809
807
808

26. MECHANICAL REPLACEMENT PARTS LIST

Note: 1.* Be sure to make your orders of replacement parts according to this list.
2. IMPORTANT SAFETY NOTICE
Components identified with the mark <!> have the special characteristics for safety. When replacing any of these components, use only the same type.

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
100(1)		VMD0954	CASSETTE GUIDE (L)	1	
101(1)		VDG0610	MAIN ARM GEAR (A)	1	
102(1)		VMD0953	CASSETTE GUIDE (R)	1	
103(1)		VXA4856	CASSETTE HOLDER UNIT	1	
104(1)		VXP1139	DAMPER UNIT	1	
105(1)		VXL1984	LOCK LEVER UNIT	1	
107(1)		VXA3863	STAND (R) UNIT	1	
109(1)		VMB1329	HOLDER SPRING (L)	1	
110(1)		VMB1621	HOLDER SPRING (R)	1	
112(1)		VSH0026	LEAF SW	1	
113(1)		VMD0952	LEAF SW COVER (O)	1	
114(1)		VMB1330	LOCK BOARD SPRING	1	
115(1)		VXA3023	STAND (L) UNIT	1	
116(1)		VMB1453	LOCK LEVER (B) SPRING	1	
117(1)		VML1650	LOCK LEVER (B)	1	
118(1)		VDP1096	LOCK ROLLER (O)	1	
119(1)		VXL1648	LOCK BOARD UNIT	1	
120(1)		VMB1331	LOCK LEVER (A) SPRING	1	
121(1)		VML1649	LOCK LEVER (A)	1	
122(1)		VXA4829	CASSETTE UP (O) UNIT	1	
123(1)		VXR0128	SUPPLY REEL TABLE	1	
124(1)		VXP0900B	SUPPLY CLUTCH UNIT	1	
125(1)		VXP0901B	TAKE-UP CLUTCH UNIT	1	
126(1)		VXR0201	TAKE-UP REEL TABLE	1	
128(1)		VSQ0808	DEW DETECTOR UNIT	1	
129(1)		VGQ0888	CASSETTE OPENER	1	
135(1)		VXZ0246	SOFT BRAKE (T) UNIT	1	
136(1)		VXP0899B	DRIVE GEAR ARM UNIT	1	
137(1)		VHD0593	CYLINDER UNIT SCREW	2	
140(1)		VEG1101	CYLINDER UNIT	1	<!>
141(1)		VDV0167	LOADING BELT	1	
142(1)		VDG0370	INTERMEDIATE PULLEY GEAR	1	
143(1)		VMX0653	CUT WASHER	1	
144(1)		VDG0372	DRIVE GEAR (B)	1	
145(1)		VXS0119	EARTH BRUSH UNIT	1	
147(1)		VDG0371	DRIVE GEAR (A)	1	
148(1)		VDG0202	CAM GEAR	1	
149(1)		VMX0388	THRUST WASHER	3	
150(1)		VXL1654	MAIN ROD (K) UNIT	1	
151(1)		VDG0211	LOADING GEAR (C) (2)	1	
152(1)		VMB1324	LOADING GEAR (C) SPRING	1	
153(1)		VDG0210	LOADING GEAR (C) (1)	1	
154(1)		VMA7228	GUARD PLATE	1	
155(1)		VML1707	DRIVE ARMKICK LEVER	1	
156(1)		VMB1388	DRIVE ARMKICK LEVER SPRING	1	
157(1)		VXP0632	SECTOR GEAR UNIT	1	
158(1)		VMA6560	SAFETY TAB SW BASE	1	
159(1)		VSH0023	SAFETY TAB SW	1	
160(1)		VDG0207	DRIVE GEAR (C)	1	
161(1)		VSS0193	MODE SW	1	
163(1)		VEK5926	STATOR UNIT	1	
164(1)		VXP1355	ROTOR UNIT	1	
165(1)		VXP0897	MAIN PULLEY UNIT	1	
166(1)		VDV0155	CAPSTAN BELT	1	
167(1)		VMD0935	BELT COVER	1	
170(1)		VHD0750	CYLINDER SCREW	3	
171(1)		VWJ0636	CAPSTAN FPC	1	
172(1)		XWGV0006	WASHER	3	
173(1)		VEK5947	PHOTO TR (R) U.	1	
174(1)		VEK6035	PHOTO TR (L) U.	1	
175(1)		VEP03A94A	RTL-FPC	1	
200(2)		VHD0282	P2 ADJUST PLATE SCREW	1	
201(2)		VMA6542	P2 ADJUST PLATE	1	
202(2)		VMD0701	SUPPLY POST STOPPER	1	
203(2)		VMD1166	V STOPPER BASE	1	
204(2)		VXP0841	SUPPLY ROLLER POST UNIT	1	
205(2)		VGQ0842	P2 CAP	1	
206(2)		VMD0769	TAPE PROTECTOR	1	
207(2)		VXA2221	SUPPLY SHAFT HOLDER(1)UNIT	1	
208(2)		VXA2256	SUPPLY SHAFT HOLDER ANGLE	1	
			UNIT	1	
209(2)		VMM0144	CONNECTION ROD	1	
210(2)		VMX1282	RING GUIDE SLEEVE UNIT	3	
211(2)		VXA2231	CONNECTION TIE UNIT	1	
212(2)		VMB1319	LOADING SPRING	1	
213(2)		VXA2253	LOADING RING (S) (1) UNIT	1	
214(2)		VDP1160	RING GUIDE ROLLER	3	
215(2)		VMB1319	LOADING SPRING	1	
216(2)		VXA3576	LOADING RING (T) (1) UNIT	1	
217(2)		VMC0250	PRESSER SPRING	1	
218(2)		VMX1279	RING GUIDE SLEEVE	3	
219(2)		VMD1155	LOADING GUIDE (S) (1)	1	
220(2)		VMD1128	LOADING GUIDE (S) (2)	1	
221(2)		VMX1088	SUPPLY UPPER LIMITER	1	
222(2)		VMS2888	P1 POST SLEEVE (B)	1	
223(2)		VMX1581	P1 COLLAR	1	
224(2)		VDP1265	P1 ROLLER	1	
225(2)		VMA6547	P1 LIMITER PLATE	1	
227(2)		VXA3112	P1 BASE (1) UNIT	1	
228(2)		VXD0098	THRUST SPACER	1	
229(2)		VHD0204	THRUST SCREW NUT	1	
230(2)		VHD0368	ROLLER POST SCREW	2	
231(2)		VMX0775	DUST SEAL	2	
232(2)		VXD0108	CAPSTAN HOUSING UNIT	1	
233(2)		VXP0927	TAKE-UP ROLLER POST UNIT	1	
234(2)		VMA6546	TAKE-UP SHAFT HOLDER ANGLE	1	
235(2)		VXA3116	TAKE-UP SHAFT HOLDER (A)	1	
			UNIT		
236(2)		VMD1165	TAKE-UP LOADING BASE	1	
237(2)		VMC0352	SHAFT HOLDER PRESSURE	1	
			SPRING		
238(2)		VMA7226	SHAFT HOLDER PLATE ANGLE	1	
239(2)		LN59NV	LED	1	
240(2)		VHD0367	TAKE-UP SHAFT ADJ. SCREW	1	
242(2)		VEM0431	LOADING MOTOR UNIT	1	<!>
245(2)		VMB1747	TENSION SPRING	1	
246(2)		VXL1262	TENSION ARM UNIT	1	
247(2)		VXZ0245	TENSION BAND UNIT	1	
248(2)		VML2065B	BAND RELEASE ARM	1	
249(2)		VXA4828	TENSION KICK LEVER	1	
250(2)		VML2064B	EJECT LEVER (A)	1	
251(2)		VXA3020	SUPPORTER UNIT	1	
252(2)		VMB1405	BRAKE SPRING	1	
253(2)		VXZ0207B	BRAKE (R) UNIT	1	
254(2)		VXZ0206B	BRAKE (L) UNIT	1	
255(2)		VXA4263	BRAKE PLATE (1) UNIT	1	
256(2)		VML2073	EJECT LEVER (B)	1	
257(2)		VED0183	A/C HEAD UNIT	1	
258(2)		VHD0275	A/C HEAD ADJUST SCREW	1	
259(2)		VMB1321	A/C HEAD ADJUST SPRING	1	
260(2)		VHD0381	A/C HEAD TILT ADJUST SCREW	1	
261(2)		VXL2256	A/C HEAD ARM UNIT	1	
262(2)		VWJ0608	A/C HEAD FPC	1	
263(2)		VHN0077	A/C HEAD ARM NUT	1	
264(2)		VMB1320	A/C HEAD SPRING	1	
265(2)		VDG0208	LOADING GEAR (A)	1	
266(2)		VDG0461	LOADING GEAR (B)	1	
267(2)		VHN0072	ADJUST NUT	1	
268(2)		VHN0047	M2 NYLON NUT	2	
269(2)		VMS2693	P4 POST SLEEVE	1	
270(2)		VXJ0057	P5 POST SLEEVE	1	
271(2)		VMB1322	P4,P5 SPRING	2	
272(2)		VML2067	PINCH LEVER	1	
273(2)		VMB2071	PINCH LEVER SPRING	1	
274(2)		VXL1652	PINCH ROLLER ARM (1) UNIT	1	
275(2)		VXL1650	PINCH ARM UNIT	1	
276(2)		VMB1326	PINCH ARM SPRING	1	
277(2)		VXL1264B	SOFT BRAKE LEVER (S) UNIT	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
278(2)		VMB1314	SOFT BRAKE SPRING (S)	1	
279(2)		VMB1771	REW ARM SPRING	1	
280(2)		VXL1649B	FF/REW ARM UNIT	1	
282(2)		VBS0021	FE HEAD	1	
283(2)		VMD1129	FE HEAD BASE	1	
284(2)		VMB1447	SUPPORTER SPRING	1	
285(2)		VXA3579	SLIDE BASE (0) UNIT	1	
286(2)		VMB1965	SLIDE SPRING	1	
287(2)		VML2285	IMPEDANCE LEVER	1	
288(2)		VHN0109	PUSH NUT	1	
289(2)		VMB1964	IMPEDANCE DRIVE SPRING	1	
290(2)		VXL1879	IMPEDANCE ARM (1) UNIT	1	
291(2)		VDP1285	IMPEDANCE ROLLER	1	
292(2)		VMX1088	SUPPLY UPPER LIMITER	1	
294(2)		VXA2220	SUPPLY SHAFT HOLDER UNIT	1	
295(2)		XWGV0006	WASHER	4	
301(3)		VXW0115	LENS U.	1	
302(3)		VXQ0331	LENS MAIN U.	1	
303(3)		VXP1300	2ND MOVING FRAME U.	1	
304(3)		VXP1302	SCREW SHAFT U.	1	
305(3)		VXQ0266	3RD FRAME LENS U.	1	
306(3)		VXL2126	IRIS U.	1	
307(3)		VXP1301	4TH MOVING FRAME U.	1	
308(3)		VMD1815	MASTER FLANGE	1	
309(3)		EVAJH4J03B14	ZOOM ENCODER U.	1	
310(3)		VEM0421	ZOOM MOTOR U.	1	
311(3)		VEM0422	FOCUS MOTOR U.	1	
312(3)		VMT0342	MOTOR CUSHION	2	
313(3)		VHD0666	SCREW	1	
314(3)		VMT0336	IRIS CUSHION	1	
315(3)		VDL0314	CRYSTAL FILTER	1	
316(3)		VMX2124	CCD CUSHION	1	
317(3)		VEK6071	CCD U.	1	
318(3)		VSC3804	CCD SHIELD CASE	1	
319(3)		VMD2023	CAM P.C.BOARD FRAME	1	
320(3)		VMP3695	CAMERA FRAME	1	
321(3)		VGF0416	SHADING PIECE	1	
322(3)		VMA8700	HOLD PLATE	1	
323(3)		VDW0182	FRONT FRAME	1	
324(3)		VDW0184	FOCUS RING	1	
325(3)		VDW0183	REAR FRAME	1	
326(3)		VMS4675	ZOOM GUIDE POLE	1	
327(3)		VMS4908	ZOOM GUIDE POLE (B)	1	
328(3)		VMS4676	FOCUS GUIDE POLE (A)	1	
329(3)		VMS4677	FOCUS GUIDE POLE (B)	1	
330(3)		VGQ1986	CHARA.GENE.JACK PIECE	1	
331(3)		VMP3694	LENS FRAME	1	
332(3)		VSC3632	HEAD AMP SHIELD CASE (C)	1	
401(4)		VMD2007	TRIPOD FRAME	1	
402(4)		VSC3732	TRIPOD SHIELD PLATE	1	
403(4)		VYP4219	CASSETTE COVER U.	1	NV-M40E3/A3/B3
403(4)		VYP4182	CASSETTE COVER U.	1	NV-M3000EN3/EM3
403(4)		VYP4183	CASSETTE COVER U.	1	NV-M3300MC3
404(4)		VYK4490	SIDE CASE (L)(1) U.	1	
405(4)		VYK4497	GRIP CASE (1) U.	1	
406(4)		VMG0462	ZOOM RUBBER CONTACT	2	
407(4)		VGQ1790	ZOOM PIECE	1	
408(4)		VGU5007	ZOOM BUTTON	1	
409(4)		VYF1893	HOOD CAP U.	1	
410(4)		VYC0557	GRIP BELT U.	1	
411(4)		VKM3088	FRONT CASE	1	
412(4)		VHD0386	GRIP BELT SCREW	1	
413(4)		VMP3822	SHOLDER ANGLE (F)	1	
414(4)		VGQ2848	LENS PIECE	2	
415(4)		VKM3090	LENS COVER	1	NV-M3000EN3,M3300MC3,
415(4)		VKM3185	LENS COVER	1	NV-M3000EM3,M40E3/A3
					/B3.
416(4)		VHD0371	SCREW	2	
417(4)		VYK4426	MANUAL FOCUS RING U.	1	
418(4)		VEK5864	MIC U.	1	
419(4)		VDW0191	LENS HOOD	1	
420(4)		VWJ0789	CYLINDER FLEX.CABLE	1	
421(4)		VWJ0636	CAPSTAN FLEX.CABLE	1	
422(4)		VSC3632	EARTH PLATE	1	
423(4)		VHD0771	SCREW	2	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
424(4)		VMP3688	FRAME SET. ANGLE	1	
426(4)		VEE7782	ZOOM FLEX	1	
501(5)		VGQ1129	BATTERY CATCHER	1	
502(5)		VMC0876	BATTERY LOCK ANGLE	1	
503(5)		VGQ2849	BATTERY LOCK	1	
504(5)		VGQ2850	INTERMEDIATE LEVER	1	
505(5)		VMP3689	SHOLDER ANGLE	1	
506(5)		VMP3692	BATTERY CASE FIX.ANGLE	1	
507(5)		VMB2524	BATTERY PUSHING SPRING	1	
508(5)		VKM3072	BATTERY CASE U.	1	
509(5)		VKF1876	BATTERY DOOR	1	
510(5)		VMC0237	DOOR SPRING	1	
511(5)		VXU1104	TOP OPERATION PANEL (1)U.	1	
512(5)		VKF1881	CURSOR	1	
513(5)		VKF1878	RESET MEMORY DOOR	1	
514(5)		VMD2006	TOP FRAME	1	
515(5)		VEK6049	HOT SHOE TERMINAL U.	1	
516(5)		VKM3071	HANDLE UPPER CASE	1	
517(5)		VMC0726	SHOE SPRING	1	
518(5)		VMP2407	SHOE	1	
519(5)		VGU5898	SLIDE KNOB (A)	1	
520(5)		VGU5908	SLIDE KNOB (B)	1	
521(5)		VMC0889	CAMERA EARTH PLATE	1	
522(5)		VGP3162	CAMERA OPERATION PANEL	1	
523(5)		VYK4574	SIDE CASE (R) U.	1	NV-M40E3/A3
523(5)		VYK4824	SIDE CASE (R) U.	1	NV-M40B3
523(5)		VYK4484	SIDE CASE (R) U.	1	NV-M3000EN3/EM3
523(5)		VYK4486	SIDE CASE (R) U.	1	NV-M3300MC3
524(5)		VMT0452	SHOLDER PAD	1	
525(5)		VWJ0640	AV JACK-MAIN CABLE	1	
526(5)		VYK4487	BATTERY CASE U.	1	
527(5)		VMZ2063	JACK BARRIER	1	
528(5)		VWJ0638	CAM OPE.-PROCESS FLEX.	1	
529(5)		VWJ0610	VTR OPE.-MAIN FLEX.	1	
601(6)		ELY07V570F	DY	1	
602(6)		VEK6002	CRT U.	1	
603(6)		VYK4496	FINDER CASE (UPPER)	1	
604(6)		VMC0316	EYE CAP HOLDER SPRING	1	
605(6)		VDL0140	LENS (2)	1	
606(6)		VKF1996	EYE CAP HOLDER	1	
607(6)		VMG0716	EYE CAP	1	
608(6)		VGU3895	EYESIGHT ADJ. LEVER	1	
609(6)		VKF1278	LENS HOLDER GUIDE	1	
610(6)		VKM3077	FINDER CASE (LOWER)	1	
611(6)		VYK4494	EVF MAIN CASE LOWER U.	1	NV-M40E3/A3,
					NV-M3000EN3/EM3,
					NV-M3300MC3
611(6)		VYK4644	EVF MAIN CASE LOWER U.	1	NV-M40B3
612(6)		VYK4493	EVF MAIN CASE UPPER U.	1	
613(6)		VMP1358	EVF BEARING	1	
614(6)		VMC0902	EVF LOCK SPRING	1	
615(6)		VMP3823	EVF ROTARY PLATE	1	
616(6)		VMP3690	EVF MOUNT ANGLE	1	
617(6)		VMX2172	WAVING WASHER	1	
618(6)		VGQ2914	EVF ROTATION BASE	1	
619(6)		VGQ2967	ROTARY BASE COVER	1	
620(6)		VMC0914	ROTARY BASE SPRING	1	
621(6)		VDL0349	MIRROR	1	
622(6)		VYQ0082	LENS HOLDER U.	1	
623(6)		VMC0890	SPRING PLATE	1	
624(6)		VGQ2846	WIRE COVER	1	
701(7)		VFC1309	SHOLDER STRAP	1	NV-M3000EN3,M3300MC3,
					NV-M40E3/A3.
702(7)		VJA0180	BATTERY CATCHER	1	NV-M3000EN3,M3300MC3,
					NV-M40E3/A3.
703(7)		VFA0039	AV OUTPUT CABLE	1	NV-M3000EN3,M3300MC3,
					NV-M40E3/A3.
704(7)		VJA0573	3PIN DC INPUT CABLE	1	NV-M3000EN3,M3300MC3,
					NV-M40E3/A3.
705(7)		VPN3478	ACCESSORY PAD	1	NV-M3000EN3,M3300MC3,
					NV-M40E3/A3.
706(7)		VPN3476	ACCESSORY BOX	1	NV-M3000EN3,M3300MC3,
					NV-M40E3/A3.
707(7)		VQT4826	OPERATING INSTRUCTIONS	1	NV-M40E3
			(ENGLISH/GERMAN/FRENCH/		

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
			SPANISH)		
707(7)		VQT4827	OPERATING INSTRUCTIONS	1	NV-M40E3
			(ITALIAN/DUTCH/SWEDISH/		
			DENISH)		
707(7)		VQT4828	OPERATING INSTRUCTIONS	1	NV-M40E3
			(FINNISH/RUSSIAN/POLISH)		
707(7)		VQT4829	OPERATING INSTRUCTIONS	1	NV-M40A3
			(ENGLISH)		
707(7)		VQT4763	OPERATING INSTRUCTIONS	1	NV-M3000EN3
			(ENGLISH/CHINESE/HINDI/		
			URDU)		
707(7)		VQT4762	OPERATING INSTRUCTIONS	1	NV-M3300MC3
			(ENGLISH/CHINESE)		
708(7)		VPN3474	CUSHION (UPPER)	1	NV-M3000EN3,M3300MC3
					NV-M40E3/A3
709(7)		VPN3475	CUSHION (LOWER)	1	NV-M3000EN3,M3300MC3
					NV-M40E3/A3
710(7)		VPG6647	PACKING CASE	1	NV-M40E3
710(7)		VPG6624	PACKING CASE	1	NV-M40A3
710(7)		VPG6521	PACKING CASE	1	NV-M3000EN3
710(7)		VPG6519	PACKING CASE	1	NV-M3300MC3
711(7)		VFA0132	DC LIGHT	1	NV-M40E3/A3
					NV-M3000EN3,M3300MC3
712(7)		VFA0152	21PIN ADAPTOR	1	NV-M40E3
801(8)		VFC1309	SHOLDER STRAP	1	NV-M40B3,NV-M3000EM3
802(8)		VJA0180	BATTERY CATCHER	1	NV-M40B3,NV-M3000EM3
803(8)		VJA0573	3PIN DC INPUT CABLE	1	NV-M40B3,NV-M3000EM3
804(8)		VFA0039	AV OUTPUT CABLE	1	NV-M3000EM3
805(8)		VQT4764	OPERATING INSTRUCTIONS	1	NV-M3000EM3
			(ENGLISH/ARABIC/HINDI/		
			URDU)		
805(8)		VQT5130	OPERATING INSTRUCTIONS	1	NV-M40B3
			(ENGLISH)		
806(8)		VPK1492	ACCESSORY CASE	1	NV-M3000EM3
806(8)		VPK1520	ACCESSORY CASE	1	NV-M40B3
807(8)		VPN2612	CUSHION	2	NV-M40B3,NV-M3000EM3
808(8)		VPG6520	PACKING CASE	1	NV-M3000EM3
808(8)		VPG6710	PACKING CASE	1	NV-M40B3
809(8)		VPQ0001	HANDLE	1	NV-M3000EM3
810(8)		VFA0132	DC LIGHT	1	NV-M3000EM3
810(8)		VFA0141	DC LIGHT	1	NV-M40B3
811(8)		VFA0152	21PIN ADAPTOR	1	NV-M40B3
			JIG & TOOLS		
		VFK0374	COLOUR TEMP. CONV. FILTER	1	(C12) OR VFK0713
		VFK0375	COLOUR TEMP. CONV. FILTER	1	(C2) OR VFK0716
		VFK0644	EVR FIXTURE	1	
		VFK0701ROM7	ROM	1	
		VFK0766A	EVR CONNECTION CABLE	1	
		VFK0734W	CONNECTION CABLE FOR	1	
			MEASURMENT	1	
		VFK0667	EXTENSION CABLE 30P	1	
		VFK0724	EXTENSION CABLE 32P	1	
		VFK0783	EXTENSION CABLE 12P	1	
		VFK0802	FLAT CABLE 24P	1	
		VFK0823	FLAT CABLE 6P	1	
		VFJ8125H3F	VHS-ALLGNMENT TAPE (PAL)	1	
		VFK0144	RETAINING RING REMOVER	1	
			(3mm)		
		VFK0191	POST ADJUSTMENT PLATE	1	
		VFK0190	REEL TABLE HEIGHT GAUGE	1	
		VFK0189	H-POSITION ADJ. -FIXTURE	1	
		VFK0137	POST ADJUSTMENT SCREWDRIVER	1	
		VFK66	FAN TYPE TENSION GAUGE	1	
		VFK0326	HEX WRENCH SET	1	
		VFK27	HEAD CLEANING STICK	1	
		MOR265	MORLYTONE GREASE	1	
		VFK0136	FINE ADJUSTMENT SCREWDRIVER	1	
		VFK0134	ADAPTOR FOR VFK0133	1	
		VFK0133	DIAL TORQUE GAUCE	1	
			FLEX & CABLE		

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
262(2)		VWJ0608	A/C HEAD FPC	1	(-FP4001)
420(4)		VWJ0789	CYLINDER FLEX.CABLE	1	(-FP2101)
421(4)		VWJ0636	CAPSTAN FLEX.CABLE	1	(-FP2102)
426(4)		VEE7782	ZOOM FLEX	1	(VEK5862-P305)
525(5)		VWJ0640	AV JACK-MAIN CABLE	1	(P1501-FP3001)
528(5)		VWJ0638	CAM OPE.-PROCESS FLEX.	1	(P6701-FP301)
529(5)		VWJ0610	VTR OPE.-MAIN FLEX.	1	(P6501-FP6001)
		VEE2015	CABLE	1	(-P1402)
		VEE7777	MECH FLEX	1	(P6009-P1401)
		VEE7779	JACK A-B FLEX.	1	(P1501-P1602)
		VEE7780	BATTERY FLEX.	1	(-P1604)
		VEE7781	DC LIGHT FLEX	1	(-P1603)
		VEE7784	CONNECTION CABLE	1	(P6007-P6701)
		VEE7787	POWER JACK A FLEX.	1	(P1001-PJ1605)
		VEE7788	POWER JACK (B) CABLE UNIT	1	(P1601-P6008)
		VEE7789	F/E HEAD FLEX.	1	(-P4002)
		VEE7792	EVF FLEX.	1	(P3002-P801,P8001)
		VEE7793	CONNECTION CABLE	1	(VEK5865-P3001)
		VEE7796	T-PHOTO FLEX.	1	(VEK5947-P6001)
		VEE7798	LODING MOTOR FLEX.	1	(-P6004)
		VEE7799	SAFETY SW FLEX.	1	(-P6005)
		VEE7800	S-PHOTO FLEX.	1	(-P6006)
		VEE8112	MIC A CONNECTION CABLE	1	(P4301 -P4001)
		VEE8184	A MECH SHASIS EARTH CABLE	1	AV JACK B-MECH EARTH
		VWJ0610	VTR OPE-MAIN FLEX	1	(FP6501-FP6001)
		VWJ0636	CAPSTAN FPC	1	(-FP2102)
		VWJ0638	CAMERA OPE - PROCESS FLEX	1	(P6701-FP301)
		VWJ06C0040AA	JUMPER CONNECTOR 6P	1	(P6501 - VTR OPE.(B))

27. ELECTRICAL REPLACEMENT PARTS LIST

Note:1.Be sure to make your orders of replacement parts according to this list.
2.IMPORTANT SAFETY NOTICE : Components identified with the mark <!> have the special characteristics for safety. When replacing any of these components,use only the same type.
3.Unless otherwise specified,
All resistors are in OHMS , K=1,000 OHMS. All capacitors are in MICRO-FARADS(uf),P=uuF.
4.The P.C.Board units marked width'■'show below the main assembled parts.
5.The marking(RTL) indicates the retention time is limited for this item. After the discontinuation of this assembly in production, it will no longer be available.

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
		VEP06832A	TALLY C.B.A	1	(RTL)
		VEP28068A	EVF C.B.A.	1	(RTL)
		VEK5862	ZOOM C.B.A.	1	(RTL) INCLUDING THE S/S C.B.A.(VEK5869) SUB S/S C.B.A. (VEK5870).
		VEK5869	S/S C.B.A.	1	(RTL) INCLUDED IN ZOOM C.B.A.(VEK5862).
		VEK5870	SUB S/S C.B.A.	1	(RTL) INCLUDED IN ZOOM BUTTON C.B.A. (VEK5862).
		VEP03A86B	MAIN C.B.A.	1	(RTL)
		VEP22117E	CCD DRIVE C.B.A.	1	(RTL)
		VEP23146E	PROCESS C.B.A.	1	(RTL)
		VEP06817B	VTR OPERATION (A) C.B.A.	1	(RTL) INCLUDING THE VTR OPERATION (B) C.B.A. (VEP06847B)
		VEP06847B	VTR OPERATION (B) C.B.A.	1	(RTL) INCLUDED IN VTR OPERATION (A) C.B.A. (VEP06817B)
		VEP20437A	CAMERA OPERARION (A) C.B.A.	1	(RTL) INCLUDED IN CAMERA OPERATION (A) C.B.A. (VEP20437A)
		VEP20438B	CAMERA OPERARION (B) C.B.A.	1	(RTL) INCLUDING THE CAMERA OPERATION (B) C.B.A. (VEP20438B)
		VEP03946B	AV JACK (A) C.B.A.	1	(RTL)
		VEP03957B	AV JACK (B) C.B.A.	1	(RTL)
		VEK5868	FE HEAD C.B.A.	1	(RTL)
		VEP03A94A	RTF FLEXIBLE CARD C.B.A.	1	
		VEP22123A	CCD FLEXIBLE CARD C.B.A.	1	(RTL)
		VEK7024	LENS FLEXIBLE CARD C.B.A.	1	
		VEK5865	CHARA/GENE C.B.A.	1	(RTL)
		VES0689	MECHANISM CONNECTION C.B.A. (MODE SELECT SWITCH)	1	(RTL)

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
	■	VEP06832A	TALLY C.B.A		(RTL)
			CAPACITORS		
C1881		ECEA0JKS101	E.CAPACITOR 6.3V 100U	1	
D1881		BR3338S	DIODE	1	
D1882		PN327	DIODE	1	
P1881		VJP1597T	CONNECTOR (MALE) 4P	1	
Q1881		2SD637	TRANSISTOR	1	
			RESISTORS		
R1881		ERDS2TJ224	C.RESISTOR 1/4W 220K	1	
R1882		ERDS2TJ473	C.RESISTOR 1/4W 47K	1	
R1883		ERDS2TJ181	C.RESISTOR 1/4W 180	1	
	■	VEP28068A	EVF C.B.A.		(RTL)
			CAPACITORS		
C801		ECHU1C104J	F.CAPACITOR CH 16V 0.1U	1	
C802		ECEA1CKE101	E.CAPACITOR 16V 100U	1	
C804		ECUM1C155ZFN	C.CAPACITOR CH 16V 1.5U	1	
C805		ECEA0JKE221	E.CAPACITOR 6.3V 220U	1	
C806		ECUM1E123KBN	C.CAPACITOR CH 25V 0.012U	1	
C807		ECEA1HKS010	E.CAPACITOR 50V 1U	1	
C808		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C809		ECA1EKF100	E.CAPACITOR 25V 10U	1	
C810		ECUM2A472JUM	C.CAPACITOR CH 4700P	1	
C811		ECEA1CKE101	E.CAPACITOR 16V 100U	1	
C812		ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	
C813		VCK0088K151E	C.CAPACITOR	1	
C814		ECEA1HKS010	E.CAPACITOR 50V 1U	1	
C815		ECUM2H331KBM	C.CAPACITOR 500V 330P	1	
C816		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C820		ECUM2A102JUN	C.CAPACITOR CH 100V 1000P	1	
C831		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
D801		MA141K	DIODE	1	
D802		SFPL-52	DIODE	1	
IC801		AN2515S.K	IC	1	
L801		VLQ0319K390	COIL 39UH	1	
L802		ELH5L218D	COIL	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
P801		VJP1598T	CONNECTOR (MALE) 5P	1	
P802		VJP3007E004	CONNECTOR (MALE) 4P	1	
P803		VJP1229T	CONNECTOR (MALE) 2P	1	
P804		VJP3007E003	CONNECTOR (MALE) 3P	1	
Q802		2SD968A-S	TRANSISTOR	1	
Q803		2SA1532	TRANSISTOR	1	
			RESISTORS		
R801		ERJ6ENF4422	M.RESISTOR	1	
R802		ERJ6GEYJ3R9	M.RESISTOR CH 1/10W 3.9	1	
R805		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	1	
R807		ERJ3GEYJ4R7	M.RESISTOR CH 1/16W 4.7	1	
R808		ERJ3GEYJ242	M.RESISTOR CH 1/16W 2.4K	1	
R809		ERJ3GEYJ564	M.RESISTOR CH 1/16W 560K	1	
R810		ERJ6GMYF104	M.RESISTOR 1/10W 10K	1	
R814		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R815		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	1	
R816		ERJ3GEYJ472	M.RESISTOR 1/16W 4.7K	1	
R817		ERJ3GEYJ242	M.RESISTOR CH 1/16W 2.4K	1	
R818		ERJ3GEYJ153	M.RESISTOR CH 1/16W 15K	1	
R819,20		ERJ6GEYJ335	M.RESISTOR CH 1/10W 3.3M	2	
R821		ERJ6GMYJ105	M.RESISTOR CH 1/10W 1M	1	
R823		ERJ3GEYJ120	M.RESISTOR CH 1/16W 12	1	
R825		VSF0015A025	FUSE	1	<!>
R830		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	1	
R832		ERJ6ENF4222	RESISTOR	1	
T801		ETF08L16B	TRANSFORMER	1	<!>
S801		VEE8085	CRT SOCKET U.	1	
VR801		EVM7JSX30BE2	V.RESISTOR 220	1	
VR803		EVMLPNA00BV6	V.RESISTOR 5.6M	1	
VR804		EVMLPNA00BE6	V.RESISTOR 2.2M	1	
	■	VEK5862	ZOOM C.B.A		(RTL)
					INCLUDING THE S/S
					C.B.A.(VEK5869)
					SUB S/S C.B.A.
					(VEK5870)
P305		VJS3172B005	CONNECTOR (FEMALE) 5P	1	
SW1890		EVQQSU04W	SWITCH	1	(FOR VEK5869)S/S
SW1891		EVQQSU04W	SWITCH	1	(FOR VEK5870)S/S
	■	VEP03A86B	MAIN C.B.A		(RTL)
B3001		VJS2961C030	CONNECTOR (FEMALE) 30P	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
B5001		VJS2961C006	CONNECTOR 6P	1	
B6001		VJP3358C016	CONNECTOR (MALE) 16P	1	
			CAPACITORS		
C1001		ECUM1E225ZFM	C.CAPACITOR CH 25V 2.2U	1	
C1002		ECEV1EA680	E.CAPACITOR CH 25V 68U	1	
C1003		ECGC0KB8R2	C.CAPACITOR 8V 8.2	1	
C1004		ECUX1H471JCV	C.CAPACITOR CH 50V 470P	1	
C1005		ECST1CY335Z	T.CAPACITOR 16V 3.3U	1	
C1006		ECUM1C105ZFM	C.CAPACITOR CH 16V 1U	1	
C1007		ECEV0JA220	E.CAPACITOR 6.3V 22U	1	
C1008		ECGC0KB8R2	C.CAPACITOR 8V 8.2	1	
C1009		ECUM1H681JCV	C.CAPACITOR CH 50V 680P	1	
C1010		ECST1CY335Z	T.CAPACITOR 16V 3.3U	1	
C1011		ECUM1C225ZFM	C.CAPACITOR CH 16V 2.2U	1	
C1012		ECUX1H222KBV	C.CAPACITOR CH 50V 2200P	1	
C1013		ECGC1BA4R7	C.CAPACITOR 8V 4.7	1	
C1014		ECUX1H561JCV	C.CAPACITOR CH 50V 560P	1	
C1016		ECUM1C335ZFM	C.CAPACITOR CH 16V 3.3U	1	
C1017		ECUM1E105ZFM	C.CAPACITOR CH 25V 1U	1	
C1019		ECUM1E474ZFM	C.CAPACITOR CH 25V 0.47U	1	
C1020		ECUM1C105ZFM	C.CAPACITOR CH 16V 1U	1	
C1022		ECUM1H104ZFM	C.CAPACITOR CH 50V 0.1U	1	
C1024		ECUM1C474ZFM	C.CAPACITOR CH 16V 0.47U	1	
C1025		ECUM1E104KBN	C.CAPACITOR CH 25V 0.01U	1	
C1026		ECEV1HA010	E.CAPACITOR 50V 1U	1	
C1027		ECUX1H121JCV	C.CAPACITOR CH 50V 12P	1	
C1028		ECUM1C474KBM	C.CAPACITOR CH 16V 0.47U	1	
C1029		ECUX1H471JCV	C.CAPACITOR CH 50V 470P	1	
C1030		ECUX1H822KBV	C.CAPACITOR CH 50V 8200P	1	
C1031		ECUX1H471JCV	C.CAPACITOR CH 50V 470P	1	
C1032		ECUX1H822KBV	C.CAPACITOR CH 50V 8200P	1	
C1033,34		ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	2	
C1035		ECUX1H680JCV	C.CAPACITOR CH 50V 68P	1	
C1036		ECUX1H471JCV	C.CAPACITOR CH 50V 470P	1	
C1037		ECUX1H822KBV	C.CAPACITOR CH 50V 8200P	1	
C1061		ECUX1H472KBV	C.CAPACITOR CH 50V 4700P	1	
C1062		ECEV1EA470	E.CAPACITOR 25V 47U	1	
C1063		ECUX1H472KBV	C.CAPACITOR CH 50V 4700P	1	
C1064		ECEV1EA470	E.CAPACITOR 25V 47U	1	
C1065,66		ECUM1C105ZFM	C.CAPACITOR CH 16V 1U	2	
C1068		ECEV1CA101	E.CAPACITOR 16V 100	1	
C1069,70		ECUM1C475ZFM	C.CAPACITOR CH 16V 470	2	
C1071		ECUM1E225ZFM	C.CAPACITOR CH 25V 2.2U	1	
C1072		ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	
C1073		ECUM1E105ZFM	C.CAPACITOR CH 25V 1U	1	
C1074		ECUM1C475ZFM	C.CAPACITOR CH 16V 470	1	
C1106		ECEV1CA100	E.CAPACITOR 16V 10U	1	
C1107		ECEV0JA220	E.CAPACITOR 6.3V 22U	1	
C1108		ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	
C1109		ECEV0JA220	E.CAPACITOR 6.3V 22U	1	
C1110		ECST1CY335Z	T.CAPACITOR 16V 3.3U	1	
C1111		ECUM1C105ZFM	C.CAPACITOR CH 16V 1U	1	
C2101		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C2102		ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	
C2103		ECST1AY475Z	T.CAPACITOR 10V 4.7U	1	
C2104		ECUM1E473KBN	C.CAPACITOR CH 25V 0.047U	1	
C2105,06		ECUX1H561KBV	C.CAPACITOR CH 50V 560P	2	
C2107		ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	1	
C2108		ECUM1E104KBN	C.CAPACITOR CH 25V 0.01U	1	
C2109		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C2110		ECUX1E223KBV	C.CAPACITOR CH 25V 0.022U	1	
C2111		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C2112		ECUM1E104KBN	C.CAPACITOR CH 25V 0.01U	1	
C2113		ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	
C2115		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C2116		ECUX1H222KBV	C.CAPACITOR CH 50V 2200P	1	
C2117,18		ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	2	
C2119-21		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	3	
C2122		ECUM1H333ZFV	C.CAPACITOR CH 50V 0.033U	1	
C2123-25		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	3	
C2126		ECEV1HAR47	E.CAPACITOR 50V 0.47U	1	
C2127		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C2128		ECUM1H333ZFV	C.CAPACITOR CH 50V 0.033U	1	
C2129		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C2130		ECEV05A470	E.CAPACITOR 4V 47U	1	
C2131		ECUX1H121JCV	C.CAPACITOR CH 50V 12P	1	
C2132		ECUM1H102JCN	C.CAPACITOR CH 50V 1000P	1	
C2133		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C2134		ECEV1AA330	E.CAPACITOR 10V 330U	1	
C2135		ECEV0GA101	E.CAPACITOR 4V 100U	1	
C2136		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C2141		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C2142		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C2143		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C2144-46		ECUM1E104KBN	C.CAPACITOR CH 25V 0.01U	3	
C2147,48		ECUM1C105KBM	C.CAPACITOR CH 16V 1U	2	
C2149		ECUM1C185ZFN	C.CAPACITOR CH 16V 1.8U	1	
C2150		ECUM1C105KBM	C.CAPACITOR CH 16V 1U	1	
C2151		ECEV1CA100	E.CAPACITOR 16V 10U	1	
C3002		ECEV0GA470	E.CAPACITOR 4V 47U	1	
C3004		ECEV0GA471	E.CAPACITOR 4V 470U	1	
C3005		ECUX1H150JCV	C.CAPACITOR CH 50V 15P	1	
C3013		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C3014,15		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	2	
C3016		ECUX1H561JCV	C.CAPACITOR CH 50V 560P	1	
C3017		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C3021		ECUX1H220JCV	C.CAPACITOR CH 50V 22P	1	
C3023		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C3024		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C3025,26		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	2	
C3028		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C3029		ECUX1H390JCV	C.CAPACITOR CH 50V 39P	1	
C3030		ECUX1H221JCV	C.CAPACITOR CH 50V 220P	1	
C3031		ECUX1H680JCV	C.CAPACITOR CH 50V 68P	1	
C3042		ECUX1H470JCV	C.CAPACITOR CH 50V 47P	1	
C3043		ECUX1H220JCV	C.CAPACITOR CH 50V 22P	1	
C3050		ECUX1H680JCV	C.CAPACITOR CH 50V 68P	1	
C3051		ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	
C3055		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3059		ECUX1H472KBV	C.CAPACITOR CH 50V 4700P	1	
C3060		ECEV1CAN4R7	E.CAPACITOR CH 16V 4.7U	1	
C3061		ECUX1H120JCV	C.CAPACITOR CH 50V 12P	1	
C3062		ECUX1H390JCV	C.CAPACITOR CH 50V 39P	1	
C3065		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C3067		ECEV1CA100	E.CAPACITOR 16V 10U	1	
C3069		ECEV0JA220	E.CAPACITOR 6.3V 22U	1	
C3072		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C3076		ECEV1EA4R7	E.CAPACITOR 25V 4.7U	1	
C3080		ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	
C3081		ECUX1H220JCV	C.CAPACITOR CH 50V 22P	1	
C3087		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3091		ECST1AD336Z	T.CAPACITOR 10V 33U	1	
C3092		ECST1CD226Z	T.CAPACITOR 16V 22U	1	
C3093		ECST0JC336Z	T.CAPACITOR 6.3V 33U	1	
C3095		ECUX1E123KBV	C.CAPACITOR CH 25V 0.012U	1	
C3203		ECUX1H820JCV	C.CAPACITOR CH 50V 82P	1	
C3822		ECWU1C823JA	CAPACITOR CH 16V 0.082U	1	
C3823		ECST1AX106Z	T.CAPACITOR 10V 10U	1	
C3824,25		ECUX1H820JCV	C.CAPACITOR CH 50V 82P	2	
C4001		ECEV1HA2R2	E.CAPACITOR 50V 2.2	1	
C4002		ECUM1H123KBN	C.CAPACITOR CH 50V 0.012U	1	
C4004		ECUX1H122KBV	C.CAPACITOR CH 50V 1200P	1	
C4005		ECUX1C153KBV	C.CAPACITOR CH 16V 0.015U	1	
C4006		ECUX1H151JCV	C.CAPACITOR CH 50V 150P	1	
C4007		ECEV1CA100	E.CAPACITOR 16V 10U	1	
C4008		ECST1CY225Z	T.CAPACITOR 16V 2.2U	1	
C4009		ECUX1H221JCV	C.CAPACITOR CH 50V 220P	1	
C4010		ECEV05A470	E.CAPACITOR 4V 47U	1	
C4011		ECUM1C105ZFM	C.CAPACITOR CH 16V 1U	1	
C4012		ECEV1HA2R2	E.CAPACITOR 50V 2.2	1	
C4013		ECEV0JA220	E.CAPACITOR 6.3V 22U	1	
C4014		ECEV0JAN220	E.CAPACITOR 6.3V 22U	1	
C4015		ECEV1CA100	E.CAPACITOR 16V 10U	1	
C4016		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C4017		ECEV1CA100	E.CAPACITOR 16V 10U	1	
C4018		ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	1	
C4019		ECUM2A682JCM	C.CAPACITOR CH 0.68U	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C4020		ECUX1E123KBV	C.CAPACITOR CH 25V 0.012U	1	
C4021		ECUM1E223KBN	C.CAPACITOR CH 25V 0.023U	1	
C4022		ECST1AX106Z	T.CAPACITOR 10V 10U	1	
C4023		ECEV0GA101	E.CAPACITOR 4V 100U	1	
C4024		ECUM1C105ZFM	C.CAPACITOR CH 16V 1U	1	
C4026		ECEV0JA220	E.CAPACITOR 6.3V 22U	1	
C4027		ECUX1H682KBV	C.CAPACITOR CH 50V 6800P	1	
C4028		ECEV05A470	E.CAPACITOR 4V 47U	1	
C4029,30		ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	2	
C4031		ECUX1H222KBV	C.CAPACITOR CH 50V 2200P	1	
C4032		ECUX1H562KBV	C.CAPACITOR CH 50V 5600P	1	
C4033		ECEV1HA2R2	E.CAPACITOR 50V 2.2	1	
C4035,36		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	2	
C4056		ECEV05A470	E.CAPACITOR 4V 47U	1	
C4058		ECUX1H182KBV	C.CAPACITOR CH 50V 1800P	1	
C5001		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C5002,03		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	2	
C5004-11		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	8	
C5012-15		ECUX1H220JCV	C.CAPACITOR CH 50V 22P	4	
C5016-23		ECUM1C224ZFN	C.CAPACITOR CH 16V 0.22U	8	
C5024		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C5025,26		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	2	
C5028		ECUM1E273KBN	C.CAPACITOR CH 25V 0.027U	1	
C5031		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C5034		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C5035		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C5052		ECUX1H121JCV	C.CAPACITOR CH 50V 12P	1	
C5053		ECUX1H151JCV	C.CAPACITOR CH 50V 150P	1	
C5054		ECUX1H390JCV	C.CAPACITOR CH 50V 39P	1	
C5055,56		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	2	
C5066		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C5067		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C5072		ECUX1E123KBV	C.CAPACITOR CH 25V 0.012U	1	
C6001		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C6002		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C6003-05		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	3	
C6006-08		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	3	
C6009		ECEV1VA220	E.CAPACITOR CH 35V 22U	1	
C6010,11		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	2	
C6012		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C6013		ECEV05A470	E.CAPACITOR 4V 47U	1	
C6014		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C6015		ECUX1H330JCV	C.CAPACITOR CH 50V 33P	1	
C6016		ECUX1H120JCV	C.CAPACITOR CH 50V 12P	1	
C6018		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C6019		ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	1	
C6020,21		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	2	
C6022,23		ECUX1H120JCV	C.CAPACITOR CH 50V 12P	2	
C6024		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6025		ECEV05A470	E.CAPACITOR 4V 47U	1	
C6026		ECEV05A330	E.CAPACITOR 4V 33U	1	
C6027		ECEV1VA220	E.CAPACITOR CH 35V 22U	1	
C6028		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6029,30		ECUX1H221JCV	C.CAPACITOR CH 50V 220P	2	
C6031		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C6032		ECEV05A470	E.CAPACITOR 4V 47U	1	
C6033		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C6034		ECUX1H120JCV	C.CAPACITOR CH 50V 12P	1	
C6035		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6038		ECEV1EA4R7	E.CAPACITOR 25V 4.7U	1	
C6041		ECST1AX106Z	T.CAPACITOR 10V 10U	1	
C6042,43		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	2	
C6201		ECUM1C105ZFM	C.CAPACITOR CH 16V 1U	1	
C6202		ECUX1H472KBV	C.CAPACITOR CH 50V 4700P	1	
C6203		ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	1	
C6206		ECEV0JA220	E.CAPACITOR 6.3V 22U	1	
C6207		ECEV1HA3R3	E.CAPACITOR 50V 3.3U	1	
C6208,09		ECUM1C105KBM	C.CAPACITOR CH 16V 1U	2	
C6210		ECUX1H561JCV	C.CAPACITOR CH 50V 560P	1	
C6211		ECEV1CA100	E.CAPACITOR 16V 10U	1	
C6212		ECEV1EA4R7	E.CAPACITOR 25V 4.7U	1	
C6213		ECUX1H223ZFV	C.CAPACITOR CH 50V 0.022U	1	
C6214		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C6215		ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	
C6217		ECEV1CA100	E.CAPACITOR 16V 10U	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C6218		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6219		ECUM1H273KBM	C.CAPACITOR CH 50V 0.027U	1	
C8001		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C8002		ECUX1H060CCV	C.CAPACITOR CH 50V 6P	1	
C8003		ECUX1H100CCV	C.CAPACITOR CH 50V 10P	1	
C8004		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C8005		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C8015		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C8016		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C8017		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C8040		ECUX1H680JCV	C.CAPACITOR CH 50V 68P	1	
C8048		ECUX1H332KBV	C.CAPACITOR CH 50V 3300P	1	
C8049		ECEV1EA4R7	E.CAPACITOR 25V 4.7U	1	
C8062,63		ECUX1H181JCV	C.CAPACITOR CH 50V 180P	2	
C8065		ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	
C8066		ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	1	
C8071		ECUX1H182KBV	C.CAPACITOR CH 50V 1800P	1	
C8072		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C8074		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C8076		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C8081		ECUX1H471JCV	C.CAPACITOR CH 50V 470P	1	
C8082		ECUX1H331JCV	C.CAPACITOR CH 50V 330P	1	
C8101		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C8102		ECUX1H330JCV	C.CAPACITOR CH 50V 33P	1	
C8103		ECUX1H120JCV	C.CAPACITOR CH 50V 12P	1	
C8105		ECUX1H470JCV	C.CAPACITOR CH 50V 47P	1	
C8107		ECUX1H151JCV	C.CAPACITOR CH 50V 150P	1	
D1002		MA736	IC	1	
D1004		MA736	IC	1	
D1005		SB05-05CP	IC	1	
D1006,07		MA142K	DIODE	2	
D1008		MA728	DIODE	1	
D1010,11		MA3200-M	DIODE	2	
D1012		MA143	DIODE	1	
D1061,62		SB05-05CP	IC	2	
D1063,64		MA728	DIODE	2	
D1065		MA3130-M	DIODE	1	
D1107		MA141WA	DIODE	1	
D1108		MA143	DIODE	1	
D2101		MA143	DIODE	1	
D2102		MA3100	DIODE	1	
D3004		MA143	DIODE	1	
D3005		MA729	DIODE	1	
D3006		MA141K	DIODE	1	
D3202		MA729	DIODE	1	
D4001		MA142K	DIODE	1	
D4002		MA132K	DIODE	1	
D4008		MA157	DIODE	1	
D4009		MA143	DIODE	1	
D5001		MA159	DIODE	1	
D5002		MA132WA	DIODE	1	
D5005		MA133	DIODE	1	
D5006-09		MA728	DIODE	4	
D6001		MA143	DIODE	1	
D6002		MA132WK	DIODE	1	
D6004-07		MA141WA	DIODE	4	
D6008		MA121	DIODE	1	
D6009,10		MA745	DIODE	2	
D6012		MA132WK	DIODE	1	
D6013		MA132WA	DIODE	1	
D6014,15		MA141WA	DIODE	2	
D6016,17		MA141K	DIODE	2	
D6018		MA3062	DIODE	1	
D6019		MA3220	DIODE	1	
D6020		MA141K	DIODE	1	
D6023		MA141K	DIODE	1	
D6024		BR1102W	DIODE	1	
D6025,26		MA745	DIODE	2	
D6201		MA141K	DIODE	1	
D8001		MA132WK	DIODE	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
FP2101		VJS2958D010	CONNECTOR (FEMALE) 10P	1	
FP2102		VJS2848B014	CONNECTOR (FEMALE) 14P	1	
FP3001		VJS3406D011	CONNECTOR (FEMALE) 16P	1	
FP4001		VJS2959B007	CONNECTOR (FEMALE) 7P	1	
FP5001		VJS2958D013	CONNECTOR (FEMALE) 23P	1	
FP6001		VJS2960A012	CONNECTOR (FEMALE) 12P	1	
IC1001		BA9703K	IC	1	
IC1102		LM393DB	IC	1	
IC2101		AN3893NFHP	IC	1	
IC2102		UN224	TRANSISTOR-RESISTOR	1	
IC2103		AN3841SR	IC	1	
IC2104		NJM2904M	IC	1	
IC3001		VEFH25D	IC	1	
IC3002		TL8809F	IC	1	
IC3804		UPD74HC02G	IC	1	
IC4001		BA7757BK	IC	1	
IC5001		AN3351FHP	IC	1	
IC6001		BA6219BFPY	IC	1	
IC6002		UPD6456GT623	IC	1	
IC6003		S3500B3	IC	1	
IC6004		MN6755243M1C	IC	1	
IC6005,06		UPD4071BG	IC	2	
IC6007		TC4S66F	IC	1	
IC6008		UPD4071BG	IC	1	
IC6009		MN12821R	IC	1	(R)
IC6010		S81350HGKD	IC	1	
IC6011		TC7S08F	IC	1	
IC8001		VEFH26B	IC	1	
IC8002		TL8833F	IC	1	
L1001		ELC6UB4R7M	COIL 4.7UH	1	
L1002		ELL04T034R	COIL 18UH	1	
L1003		ELC6UB4R7M	COIL 4.7UH	1	
L1004		VLQ0319K100	COIL 10UH	1	
L1007		ELL04T030R	COIL 100UH	1	
L1008		ELC6UB4R7M	COIL 4.7UH	1	
L1009		VLQ0319K100	COIL 10UH	1	
L1010,11		VLQ0319K101	COIL 100UH	2	
L1061,62		ELL04T031R	COIL 100UM	2	
L1063,64		VLQ0319K330	COIL 39UH	2	
L1065		VLQ0319K100	COIL 10UH	1	
L1102-04		VLQ0319K100	COIL 10UH	3	
L3001		VLQ0319K271	COIL 270UH	1	
L3002		VLQ0319F150	COIL 15UH	1	
L3003		VLQ0163J820	COIL 82UH	1	
L3004		VLQ0426J150	COIL 15UH	1	
L3005		VLQ0163J121	COIL 120UH	1	
L3009		VLQ0319F150	COIL 15UH	1	
L3010		VLQ0426J470	COIL 15UH	1	
L3011		VLQ0426J120	COIL 12UH	1	
L3015		VLQ0426J560	COIL 56UH	1	
L3018,19		VLQ0319K101	COIL 100UH	2	
L3021		VLQ0426J330	COIL 3.3UH	1	
L3025		VLQ0464	COIL 6.8UH	1	
L3802		VLQ0163K101	COIL 100UH	1	
L4001		VLQ0423J153	COIL 15MH	1	
L4002		VLQ0319K470	COIL 47UH	1	
L5001		VLQ0319F150	COIL 15UH	1	
L5003		VLQ0319F150	COIL 15UH	1	
L5004		VLQ0319K101	COIL 100UH	1	
L5005		VLQ0163J120	COIL 12UH	1	
L5006		VLQ0319F150	COIL 15UH	1	
L6001		VLQ0426J101	COIL 100UH	1	
L6002		VLQ0426J330	COIL 33UH	1	
L6003		VLQ0319K100	COIL 10UH	1	
L6004		VLQ0463	COIL	1	
L6005		VLQ0319K330	COIL 39UH	1	
L8001		VLQ0426J270	COIL 27UH	1	
L8002,03		VLQ0426J100	COIL 10UH	2	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
L8004		VLQ0319F150	COIL 15UH	1	
L8006		VLQ0426J330	COIL 33UH	1	
L8007		VLQ0319F150	COIL 15UH	1	
L8012		VLQ0319K470	COIL 47UH	1	
L8013		VLQ0426J101	COIL 100UH	1	
L8014		VLQ0163K151	COIL 150UH	1	
L8015		VLQ0426J150	COIL 15UH	1	
L8016		VLQ0133K471	COIL 470UH	1	
P1001		VJP3327D002	CONNECTOR (MALE) 2P	1	
P3001		VJP3172B005	CONNECTOR (MALE) 5P	1	
P3002		VJP3172B009	CONNECTOR (MALE) 9P	1	
P4001		VJP3172B003	CONNECTOR (MALE) 3P	1	
P4001		VJS3172B003	CONNECTOR (MALE) 3P	1	
P4002		VJP3172B002	CONNECTOR (MALE) 2P	1	
P4301		VJS3172B003	CONNECTOR (MALE) 3P	1	
P6001		VJP3172B004	CONNECTOR (MALE) 4P	1	
P6004,05		VJP3172B002	CONNECTOR (MALE) 2P	2	
P6006		VJP3172B003	CONNECTOR (MALE) 3P	1	
P6007,08		VJP3172D006	CONNECTOR (MALE) 6P	2	
P6009		VJP3172D008	CONNECTOR (MALE) 8P	1	
Q1001		2SB1202-S	TRANSISTOR	1	(S,T)
Q1002		2SB1073	TRANSISTOR	1	
Q1003		2SB1202-S	TRANSISTOR	1	(S,T)
Q1004		2SD1624-S	TRANSISTOR	1	(S,T)
Q1005		2SB1073	TRANSISTOR	1	
Q1006		2SB970X	TRANSISTOR	1	
Q1061,62		2SB956-Q	TRANSISTOR	2	
Q1063		2SD1483	TRANSISTOR	1	
Q2101		2SD1819	TRANSISTOR	1	
Q3001		2SB970X	TRANSISTOR	1	
Q3003		2SC4627	TRANSISTOR	1	
Q3004		2SD2216	TRANSISTOR	1	
Q3008,09		2SC4627	TRANSISTOR	2	
Q3011		2SB1462	TRANSISTOR	1	
Q3012		2SD2216	TRANSISTOR	1	
Q3014		2SB1462	TRANSISTOR	1	
Q3016		2SD1819	TRANSISTOR	1	
Q3018		2SB1462	TRANSISTOR	1	
Q3019,20		2SB1218	TRANSISTOR	2	
Q3021		2SC3938	TRANSISTOR	1	
Q3022		2SB970X	TRANSISTOR	1	
Q3025		2SD1819	TRANSISTOR	1	
Q3026,27		2SD2216	TRANSISTOR	2	
Q3028		2SB1219	TRANSISTOR	1	
Q3805		2SC3938	TRANSISTOR	1	
Q3806		2SB1218	TRANSISTOR	1	
Q3807		2SD1819	TRANSISTOR	1	
Q3808		2SB970X	TRANSISTOR	1	
Q4001		2SB1220	TRANSISTOR	1	
Q4002,03		2SD1819A	TRANSISTOR	2	
Q4004		2SD602-R	TRANSISTOR	1	(R)
Q4005		2SB970X	TRANSISTOR	1	
Q4006		2SD2216	TRANSISTOR	1	
Q4007		2SD1328	TRANSISTOR CHIP	1	
Q4008		2SB1462	TRANSISTOR	1	
Q4009		2SB1218	TRANSISTOR	1	
Q4010,11		2SD1328	TRANSISTOR CHIP	2	
Q4015		2SD1819	TRANSISTOR	1	
Q5001,02		XN4504	TRANSISTOR-TRANSISTOR	2	
Q5003		2SB970X	TRANSISTOR	1	
Q5004,05		2SA812	TRANSISTOR	2	
Q5008		2SD1328	TRANSISTOR CHIP	1	
Q5009		2SD602-R	TRANSISTOR	1	(R)
Q6002		2SD1820-R	TRANSISTOR	1	
Q6003		XN1213	TRANSISTOR-TRANSISTOR	1	
Q6004		2SB970X	TRANSISTOR	1	
Q6005		2SD1819	TRANSISTOR	1	
Q6006		2SD2216	TRANSISTOR	1	
Q6007		2SB1218	TRANSISTOR	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
Q6008		2SD1819	TRANSISTOR	1	
Q6009		2SD1823	TRANSISTOR	1	
Q6010		2SD1328	TRANSISTOR CHIP	1	
Q6012		2SD1819	TRANSISTOR	1	
Q8001,02		2SD1819	TRANSISTOR	2	
Q8009		2SB1462	TRANSISTOR	1	
Q8013		2SB1218	TRANSISTOR	1	
Q8014		2SD1819	TRANSISTOR	1	
QR1002		UN5214	TRANSISTOR-RESISTOR	1	
QR1006		XN1501	TRANSISTOR-TRANSISTOR	1	
QR1061		UN5115	TRANSISTOR-RESISTOR	1	
QR3001		UN9212	TRANSISTOR-RESISTOR	1	
QR3009		UN9212	TRANSISTOR-RESISTOR	1	
QR3016		UN9212	TRANSISTOR-RESISTOR	1	
QR3018		UN5212	TRANSISTOR-RESISTOR	1	
QR3023		XN1501	TRANSISTOR-TRANSISTOR	1	
QR3024,25		UN5212	TRANSISTOR-RESISTOR	2	
QR3804		UN5217	TRANSISTOR-RESISTOR	1	
QR3805		UN5116	TRANSISTOR-RESISTOR	1	
QR3806		UN5212	TRANSISTOR-RESISTOR	1	
QR3807		UN5213	TRANSISTOR	1	
QR4001		XN4312	TRANSISTOR-TRANSISTOR	1	
QR4002		UN5213	TRANSISTOR	1	
QR4003		UN5210	TRANSISTOR	1	
QR4005		UN511F	TRANSISTOR	1	
QR4006		UN5213	TRANSISTOR	1	
QR4007		UN5210	TRANSISTOR	1	
QR4011		UN5213	TRANSISTOR	1	
QR5001		UN9213	TRANSISTOR-RESISTOR	1	
QR5002		UN5212	TRANSISTOR-RESISTOR	1	
QR5004		XP1213	TRANSISTOR-RESISTOR	1	
QR6001		UN9213	TRANSISTOR-RESISTOR	1	
QR6002		UN2130X	IC	1	
QR6003		UN9212	TRANSISTOR-RESISTOR	1	
QR6004		XN4130	TRANSISTOR-RESISTOR	1	
QR6005		UN5112	TRANSISTOR-RESISTOR	1	
QR6007		UN9213	TRANSISTOR-RESISTOR	1	
QR6008		UN5213	TRANSISTOR	1	
QR6010		UN5112	TRANSISTOR-RESISTOR	1	
QR6011,12		UN9112	TRANSISTOR-RESISTOR	2	
QR6013		UN521E	TRANSISTOR-RESISTOR	1	
QR6015		UN5211	TRANSISTOR-RESISTOR	1	
QR6017		UN5213	TRANSISTOR	1	
QR6018		UN5211	TRANSISTOR-RESISTOR	1	
QR8101		UN9212	TRANSISTOR-RESISTOR	1	
			RESISTORS		
R1001		ERJ6GEYG682	M.REISITOR CH 1/10W 6.8K	1	
R1002		ERJ6GEYG202	M.RESISTOR CH 1/10W 2K	1	
R1003		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	1	
R1004		ERJ3GEYJ331	M.RESISTOR CH 1/16W 330	1	
R1005		ERJ6GEYG562	M.RESISTOR CH 1/10W 5.6K	1	
R1006		ERJ6GEYG272	M.RESISTOR CH 1/10W 2.7K	1	
R1007		ERJ8GEYJ101	M.RESISTOR CH 1/8W 100	1	
R1008		ERJ6GEYG103	M.RESISTOR CH 1/10W 10K	1	
R1009		ERJ6GEYG152	M.RESISTOR CH 1/10W 1.5K	1	
R1012		ERJ3GEYG163	M.RESISTOR CH 1/16W 16K	1	
R1013		ERJ3GEYG393	M.RESISTOR CH 1/16W 39K	1	
R1014,15		ERJ6GEYG182	M.RESISTOR CH 1/10W 1.8K	2	
R1016		VRE0034E153	M.RESISTOR CH 1/10W 15K	1	
R1017		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	1	
R1018		ERJ3GEYJ151	M.RESISTOR CH 1/16W 150	1	
R1019		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	1	
R1020		ERJ3GEYJ151	M.RESISTOR CH 1/16W 150	1	
R1021		ERJ3GEYJ680	M.RESISTOR CH 1/16W 68	1	
R1022		ERJ3GEYJ560	M.RESISTOR CH 1/16W 56	1	
R1023		ERJ3GEYJ392	M.RESISTOR CH 1/16W 3.9K	1	
R1024		ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R1025,26		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	2	
R1027		ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R1029		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R1030		ERJ3GEYJ183	M.RESISTOR CH 1/16W 18K	1	
R1031		ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	1	
R1032,33		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	2	
R1034		ERJ3GEY0R00	M.RESISTOR 1/16W 0	1	
R1035		ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R1036		ERJ3GEY0R00	M.RESISTOR 1/16W 0	1	
R1037		ERJ3GEYG470	M.RESISTOR CH 1/16W 47	1	
R1061		ERJ6GEYJ391	M.RESISTOR CH 1/10W 390	1	
R1062		ERJ6GEYJ681	M.RESISTOR CH 1/10W 680	1	
R1063		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R1064,65		ERJ3GEYJ122	M.RESISTOR CH 1/16W 1.2K	2	
R1066		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	1	
R1067		ERJ3GEYJ472	M.RESISTOR 1/16W 4.7K	1	
R1068		ERJ3GEY0R00	M.RESISTOR 1/16W 0	1	
R1105-07		ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	3	
R1108		ERJ3GEY0R00	M.RESISTOR 1/16W 0	1	
R2101		ERJ3GEYJ561	M.RESISTOR CH 1/16W 560	1	
R2102-04		ERJ3GEYJ682	M.RESISTOR 1/16W 6.8K	3	
R2105		ERJ8GEYJR33	M.RESISTOR CH 1/8W 0.33	1	
R2106		ERJ8GEYJR47	M.RESISTOR 1/8W 0.47	1	
R2107		ERJ3GEYJ332	M.RESISTOR 1/16W 3.3K	1	
R2108		ERJ3GEYJ564	M.RESISTOR CH 1/16W 560K	1	
R2109		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R2110		ERJ3GEYJ332	M.RESISTOR 1/16W 3.3K	1	
R2111		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R2112		ERJ3GEYJ154	M.RESISTOR CH 1/16W 150K	1	
R2113		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	1	
R2114		ERJ8GEYJ1R0	M.RESISTOR CH 1/8W 1	1	
R2115		ERJ8GEYJR47	M.RESISTOR 1/8W 0.47	1	
R2116,17		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	2	
R2118		ERJ3GEYJ332	M.RESISTOR 1/16W 3.3K	1	
R2119		ERJ3GEYJ563	M.RESISTOR CH 1/16W 56K	1	
R2121		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	1	
R2122		ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	1	
R2123		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	1	
R2124		ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	1	
R2125		ERJ3GEYJ820	M.RESISTOR CH 1/16W 82	1	
R2126		ERJ3GEY0R00	M.RESISTOR 1/16W 0	1	
R2130		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R3001		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R3002		ERJ3GEYJ152	M.RESISTOR 1/16W 1.5K	1	
R3010		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	1	
R3011		ERJ3GEY0R00	M.RESISTOR 1/16W 0	1	
R3012		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R3013		ERJ3GEYJ392	M.RESISTOR CH 1/16W 3.9K	1	
R3014,15		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	2	
R3016		ERJ3GEYJ561	M.RESISTOR CH 1/16W 560	1	
R3019		ERJ3GEYJ563	M.RESISTOR CH 1/16W 56K	1	
R3021		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R3023		ERJ3GEYJ472	M.RESISTOR 1/16W 4.7K	1	
R3024		ERJ3GEYJ821	M.RESISTOR CH 1/16W 820	1	
R3025		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	1	
R3026		ERJ3GEYJ182	M.RESISTOR CH 1/16W 1.8K	1	
R3028		ERJ3GEYJ273	M.RESISTOR CH 1/16W 27K	1	
R3041		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R3042		ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	1	
R3043		ERJ3GEY0R00	M.RESISTOR 1/16W 0	1	
R3046		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R3047		ERJ3GEYJ472	M.RESISTOR 1/16W 4.7K	1	
R3049		ERJ3GEY0R00	M.RESISTOR 1/16W 0	1	
R3051		ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	1	
R3052		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	1	
R3054		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	1	
R3055		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R3059		ERJ3GEYJ273	M.RESISTOR CH 1/16W 27K	1	
R3060		ERJ3GEYJ680	M.RESISTOR CH 1/16W 68	1	
R3063		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R3068,69		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	2	
R3070		ERJ3GEYJ561	M.RESISTOR CH 1/16W 560	1	
R3071		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R3072		ERJ3GEYJ561	M.RESISTOR CH 1/16W 560	1	
R3073		ERJ3GEYJ681	M.RESISTOR CH 1/16W 680	1	
R3074,75		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	2	
R3078		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R3079		ERJ3GEYJ471	M.RESISTOR 1/16W 470	1	
R3080		ERJ3GEYJ152	M.RESISTOR 1/16W 1.5K	1	
R3081		ERJ3GEY0R00	M.RESISTOR 1/16W 0	1	
R3082		ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	1	
R3087		ERJ3GEY0R00	M.RESISTOR 1/16W 0	1	
R3090		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R3091		ERJ3GEYJ332	M.RESISTOR 1/16W 3.3K	1	
R3092		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	1	
R3093		ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R3096		ERJ3GEY0R00	M.RESISTOR 1/16W 0	1	
R3098		ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	1	
R3103		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R3104		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R3107		ERJ3GEY0R00	M.RESISTOR 1/16W 0	1	
R3109		ERJ3GEYJ471	M.RESISTOR 1/16W 470	1	
R3111		ERJ3GEYJ183	M.RESISTOR CH 1/16W 18K	1	
R3112		ERJ3GEY0R00	M.RESISTOR 1/16W 0	1	
R3113		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	1	
R3115		ERJ3GEY0R00	M.RESISTOR 1/16W 0	1	
R3117,18		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	2	
R3119		ERJ3GEY0R00	M.RESISTOR 1/16W 0	1	
R3121		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R3122		ERJ3GEYJ472	M.RESISTOR 1/16W 4.7K	1	
R3123		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R3124		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	1	
R3127		ERJ3GEYJ183	M.RESISTOR CH 1/16W 18K	1	
R3128		ERJ3GEYJ474	M.RESISTOR CH 1/16W 470K	1	
R3135		ERJ3GEYJ122	M.RESISTOR CH 1/16W 1.2K	1	
R3136		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	1	
R3137		ERJ3GEY0R00	M.RESISTOR 1/16W 0	1	
R3143,44		ERJ3GEY0R00	M.RESISTOR 1/16W 0	2	
R3146,47		ERJ3GEY0R00	M.RESISTOR 1/16W 0	2	
R3150		ERJ3GEY0R00	M.RESISTOR 1/16W 0	1	
R3152		ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	1	
R3153		ERJ3GEYJ562	M.RESISTOR CH 1/16W 5.6K	1	
R3154		ERJ3GEYJ682	M.RESISTOR 1/16W 6.8K	1	
R3155		ERJ3GEYJ562	M.RESISTOR CH 1/16W 5.6K	1	
R3156		ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	1	
R3157		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R3160		ERJ3GEYJ152	M.RESISTOR 1/16W 1.5K	1	
R3164,65		ERJ3GEY0R00	M.RESISTOR 1/16W 0	2	
R3166		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R3167		ERJ3GEY0R00	M.RESISTOR 1/16W 0	1	
R3168		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	1	
R3169		ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R3170		ERJ3GEYJ224	M.RESISTOR CH 1/16W 220K	1	
R3171		ERJ3GEY0R00	M.RESISTOR 1/16W 0	1	
R3203		ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R3226		ERJ3GEY0R00	M.RESISTOR 1/16W 0	1	
R3229		ERJ3GEY0R00	M.RESISTOR 1/16W 0	1	
R3232		ERJ3GEY0R00	M.RESISTOR 1/16W 0	1	
R3805		ERJ3GEY0R00	M.RESISTOR 1/16W 0	1	
R3808		ERJ3GEY0R00	M.RESISTOR 1/16W 0	1	
R3826,27		ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	2	
R3828		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R3829		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R3830		ERJ3GEYJ681	M.RESISTOR CH 1/16W 680	1	
R3831		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R3832,33		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	2	
R3834		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R3835		ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	1	
R3836		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R3838,39		ERJ3GEYJ472	M.RESISTOR 1/16W 4.7K	2	
R3843		ERJ3GEY0R00	M.RESISTOR 1/16W 0	1	
R4001		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R4002		ERJ3GEYJ123	M.RESISTOR CH 1/16W 12K	1	
R4003		ERJ3GEYJ100	M.RESISTOR CH 1/16W 10	1	
R4004		ERJ3GEYJ393	M.RESISTOR CH 1/16W 39K	1	
R4005		ERJ3GEYJ121	M.RESISTOR CH 1/16W 120	1	
R4007		ERJ3GEYJ121	M.RESISTOR CH 1/16W 120	1	
R4008		ERJ3GEYJ334	M.RESISTOR CH 1/16W 330K	1	
R4009		ERJ3GEYJ562	M.RESISTOR CH 1/16W 5.6K	1	
R4010		ERJ3GEYJ563	M.RESISTOR CH 1/16W 56K	1	
R4011		ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	1	
R4012		ERJ3GEYJ123	M.RESISTOR CH 1/16W 12K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R4013		ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R4014		ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R4015		ERJ3GEYJ393	M.RESISTOR CH 1/16W 39K	1	
R4016,17		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	2	
R4018		ERJ3GEYJ152	M.RESISTOR 1/16W 1.5K	1	
R4020		ERJ3GEYJ390	M.RESISTOR CH 1/16W 39	1	
R4021		ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	1	
R4022		ERJ3GEYJ562	M.RESISTOR CH 1/16W 5.6K	1	
R4023		ERJ3GEYJ681	M.RESISTOR CH 1/16W 680	1	
R4024		ERJ3GEYJ392	M.RESISTOR CH 1/16W 3.9K	1	
R4025		ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R4027		ERJ3GEYJ273	M.RESISTOR CH 1/16W 27K	1	
R4028		ERJ3GEYJ154	M.RESISTOR CH 1/16W 150K	1	
R4029		ERJ3GEYJ153	M.RESISTOR CH 1/16W 15K	1	
R4030,31		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	2	
R4032		ERJ3GEYJ562	M.RESISTOR CH 1/16W 5.6K	1	
R4033		ERJ3GEYJ331	M.RESISTOR CH 1/16W 330	1	
R4034		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R4035		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R4036		ERJ3GEYJ561	M.RESISTOR CH 1/16W 560	1	
R4038		ERJ8GEYJ181	M.RESISTOR CH 1/8W 180	1	
R4039		ERJ6GEYJ820	M.RESISTOR CH 1/10W 82	1	
R4040		ERJ3GEYJ153	M.RESISTOR CH 1/16W 15K	1	
R4041,42		ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	2	
R4043		ERJ3GEYJ225	M.RESISTOR CH 1/16W 2.2M	1	
R4081,82		ERJ3GEYJ472	M.RESISTOR 1/16W 4.7K	2	
R4085		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	1	
R4087		ERJ3GEY0R00	M.RESISTOR 1/16W 0	1	
R4093		ERJ3GEYJ153	M.RESISTOR CH 1/16W 15K	1	
R4095		ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R4096		ERJ3GEY0R00	M.RESISTOR 1/16W 0	1	
R4508		ERJ3GEY0R00	M.RESISTOR 1/16W 0	1	
R4530		ERJ3GEY0R00	M.RESISTOR 1/16W 0	1	
R5001		ERJ3GEYJ332	M.RESISTOR 1/16W 3.3K	1	
R5002		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R5003		ERJ3GEYJ822	M.RESISTOR 1/16W 8.2K	1	
R5004-07		ERJ3GEYJ471	M.RESISTOR 1/16W 470	4	
R5008-11		ERJ3GEYJ821	M.RESISTOR CH 1/16W 820	4	
R5012		ERJ3GEYJ472	M.RESISTOR 1/16W 4.7K	1	
R5013		ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	1	
R5024		ERJ3GEYJ4R7	M.RESISTOR CH 1/16W 4.7	1	
R5025		ERJ3GEYJ391	M.RESISTOR CH 1/16W 390	1	
R5026		ERJ3GEYJ181	M.RESISTOR CH 1/16W 180	1	
R5027		ERJ3GEYJ822	M.RESISTOR 1/16W 8.2K	1	
R5028		ERJ3GEYJ183	M.RESISTOR CH 1/16W 18K	1	
R5029		ERJ3GEYJ100	M.RESISTOR CH 1/16W 10	1	
R5032		ERJ3GEYJ184	M.RESISTOR CH 1/16W 180K	1	
R5033		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R5034		ERJ3GEYJ184	M.RESISTOR CH 1/16W 180K	1	
R5035		ERJ3GEYJ391	M.RESISTOR CH 1/16W 390	1	
R5036		ERJ3GEYJ332	M.RESISTOR 1/16W 3.3K	1	
R5038		ERJ3GEYJ332	M.RESISTOR 1/16W 3.3K	1	
R5039		ERJ3GEYJ183	M.RESISTOR CH 1/16W 18K	1	
R5040-42		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	3	
R5043-45		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	3	
R5052		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R5067-70		ERJ3GEYJ394	M.RESISTOR CH 1/16W 390K	4	
R5074		ERJ3GEY0R00	M.RESISTOR 1/16W 0	1	
R6001,02		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	2	
R6003,04		ERJ3GEYJ392	M.RESISTOR CH 1/16W 3.9K	2	
R6005		ERJ3GEYJ152	M.RESISTOR 1/16W 1.5K	1	
R6006,07		ERJ3GEYJ184	M.RESISTOR CH 1/16W 180K	2	
R6008		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	1	
R6009		ERJ3GEYJ393	M.RESISTOR CH 1/16W 39K	1	
R6014		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	1	
R6015		VRE0067G473	M.RESISTOR 47K	1	
R6016		VRE0067G153	M.RESISTOR 15K	1	
R6017,18		ERJ8GEYJ101	M.RESISTOR CH 1/8W 100	2	
R6019-21		ERJ8GEYJ151	M.RESISTOR CH 1/8W 150	3	
R6022		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R6023		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R6024		ERJ3GEYJ394	M.RESISTOR CH 1/16W 390K	1	
R6025,26		ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	2	
R6027		ERJ3GEYJ472	M.RESISTOR 1/16W 4.7K	1	
R6028-30		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	3	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R6031		ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R6032-36		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	5	
R6037		ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	1	
R6038-42		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	5	
R6043		ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R6044		ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	1	
R6045		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	1	
R6046-49		ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	4	
R6050		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	1	
R6051-53		ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	3	
R6054-62		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	9	
R6063		ERJ3GEYJ153	M.RESISTOR CH 1/16W 15K	1	
R6065,66		ERJ3GEYJ184	M.RESISTOR CH 1/16W 180K	2	
R6067,68		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	2	
R6069		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R6070		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R6071		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R6072-78		ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	7	
R6079		ERJ8GEYJ100	M.RESISTOR CH 1/8W 10	1	
R6080,81		ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	2	
R6082		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R6083,84		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	2	
R6085,86		ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	2	
R6087		ERJ8GEYJ221	M.RESISTOR CH 1/8W 220	1	
R6088,89		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	2	
R6090		ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	1	
R6091		ERJ8GEYJ271	M.RESISTOR CH 1/8W 270	1	
R6092		ERJ3GEYJ471	M.RESISTOR 1/16W 470	1	
R6093		ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R6095		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R6096		ERJ8GEYJ331	M.RESISTOR CH 1/8W 330	1	
R6097		ERJ3GEYJ472	M.RESISTOR 1/16W 4.7K	1	
R6098		ERJ3GEYJ682	M.RESISTOR 1/16W 6.8K	1	
R6099		ERJ3GEYJ182	M.RESISTOR CH 1/16W 1.8K	1	
R6100		ERJ3GEYJ330	M.RESISTOR CH 1/16W 33	1	
R6101		ERJ3GEYJ392	M.RESISTOR CH 1/16W 3.9K	1	
R6102		ERJ3GEYJ472	M.RESISTOR 1/16W 4.7K	1	
R6103		ERJ3GEYJ183	M.RESISTOR CH 1/16W 18K	1	
R6104		ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	1	
R6105		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	1	
R6106,07		ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	2	
R6108		ERJ3GEY0R00	M.RESISTOR 1/16W 0	1	
R6109-12		ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	4	
R6113		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R6114,15		ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	2	
R6116		ERJ3GEY0R00	M.RESISTOR 1/16W 0	1	
R6121		ERJ3GEYJ472	M.RESISTOR 1/16W 4.7K	1	
R6122		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R6125,26		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	2	
R6127		ERJ3GEY0R00	M.RESISTOR 1/16W 0	1	
R6128		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R6129		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R6130		ERJ8GEY0R00	M.RESISTOR CH 1/8W 0	1	
R6201		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R6202		ERJ3GEYJ114	M.RESISTOR CH 1/16W 110K	1	
R6203		ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R6204		ERJ3GEYJ181	M.RESISTOR CH 1/16W 180	1	
R6205-07		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	3	
R6208		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R6209		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R6210,11		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	2	
R6212		ERJ3GEY0R00	M.RESISTOR 1/16W 0	1	
R6215,16		ERJ3GEY0R00	M.RESISTOR 1/16W 0	2	
R6217		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R8003		ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	1	
R8014,15		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	2	
R8016		ERJ3GEYJ182	M.RESISTOR CH 1/16W 1.8K	1	
R8017		ERJ3GEYJ681	M.RESISTOR CH 1/16W 680	1	
R8030		ERJ3GEY0R00	M.RESISTOR 1/16W 0	1	
R8032		ERJ3GEY0R00	M.RESISTOR 1/16W 0	1	
R8044		ERJ3GEYJ152	M.RESISTOR 1/16W 1.5K	1	
R8045		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R8054		ERJ3GEYJ472	M.RESISTOR 1/16W 4.7K	1	
R8057,58		ERJ3GEYJ474	M.RESISTOR CH 1/16W 470K	2	
R8062		ERJ3GEYJ152	M.RESISTOR 1/16W 1.5K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R8064		ERJ3GEY0R00	M.RESISTOR 1/16W 0	1	
R8065		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R8066		ERJ3GEYJ392	M.RESISTOR CH 1/16W 3.9K	1	
R8067		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	1	
R8070		ERJ3GEYJ681	M.RESISTOR CH 1/16W 680	1	
R8071,72		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	2	
R8090		ERJ3GEYJ681	M.RESISTOR CH 1/16W 680	1	
R8091		ERJ3GEYJ153	M.RESISTOR CH 1/16W 15K	1	
R8092		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	1	
R8093		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R8094		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	1	
R8095		ERJ3GEYJ331	M.RESISTOR CH 1/16W 330	1	
R8111		ERJ3GEYJ472	M.RESISTOR 1/16W 4.7K	1	
T1001		ELL04T032R	TRANSFORMER	1	
T4001		EIQ6QB006		1	
VR1001		EVM7JSX30B52	V.RESISTOR 500	1	
VR1002		EVM7JSX30B13	V.RESISTOR 1K	1	
VR1003		EVM7JSX30BE2	V.RESISTOR	1	
VR3001		EVM7JSX30B23	V.RESISTOR 2K	1	
VR3005		EVM7JSX30B23	V.RESISTOR 2K	1	
VR3008		EVM7JSX30B13	V.RESISTOR 1K	1	
VR3802		EVM7JSX30B14	V.RESISTOR 10K	1	
VR4001		EVM7JSX30B52	V.RESISTOR 500	1	
VR4002		EVM7JSX30B54	V.RESISTOR 50K	1	
VR6201		EVM7JSX30B15	V.RESISTOR 100K	1	
VR8001		EVM7JSX30B23	V.RESISTOR 2K	1	
X6002		VSX0461	CRYSTAL OSCILLATOR	1	
X6003		VSX0439	CRYSTAL OSCILLATOR	1	
X8001		VSX0419	CRYSTAL OSCILLATOR	1	
			MISCELLANEOUS		
		VSC3639	POWER SHIELD COVER (A)	1	
		VSC3640	POWER SHIELD COVER (B)	1	
		VSC3630	H.A. SHIELD COVER (A)	1	
		VSC3631	H.A. SHIELD COVER (B)	1	
		VSC3784	POWER SINK HEAT PLATE	1	
		VEE8112	MIC A CONNECTION CABLE	1	
		VKC0412	C.B.A. POST	1	
	■	VEP22117E	CCD DRIVE C.B.A.		(RTL)
B201		VJP3159C032	CONNECTOR (MALE) 32P	1	
B202		VJP2962A012	CONNECTOR (MALE) 12P	1	
			CAPACITORS		
C201		ECST1CX685Z	T.CAPACITOR 16V 68U	1	
C202,03		ECUX1H270JCV	C.CAPACITOR CH 50V 27P	2	
C205		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C206,07		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	2	
C209		ECST1CY335Z	T.CAPACITOR 16V 3.3U	1	
C210		ECST1VX155Z	T.CAPACITOR 35V 1.5U	1	
C211		ECST1CY335Z	T.CAPACITOR 16V 3.3U	1	
C212		ECST1VX225Z	T.CAPACITOR 35V 2.2U	1	
C213,14		ECUX1H270JCV	C.CAPACITOR CH 50V 27P	2	
C215		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C216,17		ECUX1H270JCV	C.CAPACITOR CH 50V 27P	2	
C218		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C220		ECUX1H150JCV	C.CAPACITOR CH 50V 15P	1	
C221		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C222		ECUX1H120JCV	C.CAPACITOR CH 50V 12P	1	
C223		ECRJA020E11	V.CAPACITOR	1	
C224		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C226		ECUM1C185ZFN	C.CAPACITOR CH 16V 1.8U	1	
C227,28		ECST0JY106Z	T.CAPACITOR 6.3V 10U	2	
C229		ECEV0GA330	E.CAPACITOR 4V 33U	1	
C230		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C231,32		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	2	
C233		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C234		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C235		ECST1CX685Z	T.CAPACITOR 16V 68U	1	
C236		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C237		ECST0GY106Z	T.CAPACITOR 4V 10U	1	
C238-40		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	3	
C241		ECUX1H270JCV	C.CAPACITOR CH 50V 27P	1	
C242		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C243		ECUM1H473ZFV	C.CAPACITOR CH 50V 0.047U	1	
C244		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C245		ECST1CX685Z	T.CAPACITOR 16V 68U	1	
C246		ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	1	
C248		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C251		ECST1VX155Z	T.CAPACITOR 35V 1.5U	1	
C252		ECUX1H100CCV	C.CAPACITOR CH 50V 10P	1	
C254		ECUX1H100CCV	C.CAPACITOR CH 50V 10P	1	
C256		ECUX1H180JCV	C.CAPACITOR CH 50V 18P	1	
C258,59		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	2	
C260,61		ECUX1H560JCV	C.CAPACITOR CH 50V 56P	2	
C262		ECUX1H330JCV	C.CAPACITOR CH 50V 33P	1	
C264		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C266		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C267-69		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	3	
C270		ECUX1H050CCV	C.CAPACITOR CH 50V 5P	1	
C271		ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	1	
C280		ECUX1H100CCV	C.CAPACITOR CH 50V 10P	1	
D201		MA110	DIODE	1	
D203,04		MA110	DIODE	2	
D205		MA728	DIODE	1	
D206,07		MA110	DIODE	2	
D209		MA110	DIODE	1	
FL201		ELB3H009	FILTER	1	
IC201		MN5188	IC	1	
IC202		MN3110SA	IC	1	
IC203		AN2013SB	IC	1	
IC204		AN2033FAP	IC	1	
IC205		LM358DB	IC	1	
L201-07		ELJFC150KB		7	
L208		VLQ0426J390		1	
L209		VLQ0556	FILTER	1	
L210		ELJFC150KB		1	
L211,12		VLQ0556	FILTER	2	
L214,15		VLQ0555	FILTER	2	
L221		VLQ0401K4R7	COIL 4.7UH	1	
L222		ELJFC3R3KB	COIL 3.3UH	1	
L223		VLQ0426J270	COIL 27UH	1	
Q201		XP4654	TRANSISTOR-TRANSISTOR	1	
Q202,03		2SD1819	TRANSISTOR	2	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
Q205		XP4654	TRANSISTOR-TRANSISTOR	1	
Q206		XN4601	TRANSISTOR-TRANSISTOR	1	
Q207		XP4654	TRANSISTOR-TRANSISTOR	1	
Q211		2SB1218	TRANSISTOR	1	
Q214		2SD1819	TRANSISTOR	1	
Q215		XN4601	TRANSISTOR-TRANSISTOR	1	
Q219		2SB1218	TRANSISTOR	1	
			RESISTORS		
R201		ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	1	
R202		ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R203		ERJ3GEYJ183	M.RESISTOR CH 1/16W 18K	1	
R204		ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	1	
R206		ERJ3GEYJ181	M.RESISTOR CH 1/16W 180	1	
R209		ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	1	
R210		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R211		ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	1	
R212		ERJ3GEY0R00	M.RESISTOR 1/16W 0	1	
R214		ERJ3GEYJ391	M.RESISTOR CH 1/16W 390	1	
R215		ERJ3GEYJ152	M.RESISTOR 1/16W 1.5K	1	
R216		ERJ3GEYJ334	M.RESISTOR CH 1/16W 330K	1	
R218		ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R219		ERJ3GEYJ330	M.RESISTOR CH 1/16W 33	1	
R220		ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R221		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	1	
R223		ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	1	
R224		ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R225		ERJ3GEYJ154	M.RESISTOR CH 1/16W 150K	1	
R226		ERJ3GEYJ684	M.RESISTOR CH 1/16W 680K	1	
R227		ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R228		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R229		ERJ3GEYJ681	M.RESISTOR CH 1/16W 680	1	
R230		ERJ3GEYJ331	M.RESISTOR CH 1/16W 330	1	
R232		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	1	
R236		ERJ3GEYJ182	M.RESISTOR CH 1/16W 1.8K	1	
R237		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	1	
R239		ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R241		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R242		ERJ3GEYJ822	M.RESISTOR 1/16W 8.2K	1	
R243		ERJ3GEYJ472	M.RESISTOR 1/16W 4.7K	1	
R244		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	1	
R245		ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	1	
R249		ERJ3GEYJ562	M.RESISTOR CH 1/16W 5.6K	1	
R253		ERJ3GEYJ472	M.RESISTOR 1/16W 4.7K	1	
R254		ERJ3GEYJ824	M.RESISTOR CH 1/16W 820K	1	
R255,56		ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	2	
R257		ERJ3GEYJ331	M.RESISTOR CH 1/16W 330	1	
R258		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R259		ERJ3GEYJ562	M.RESISTOR CH 1/16W 5.6K	1	
R265		ERJ3GEYJ332	M.RESISTOR 1/16W 3.3K	1	
R266		ERJ3GEY0R00	M.RESISTOR 1/16W 0	1	
R267		ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R268		ERJ3GEYJ153	M.RESISTOR CH 1/16W 15K	1	
R269		ERJ3GEYJ682	M.RESISTOR 1/16W 6.8K	1	
R270		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R271		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R272		ERJ3GEYJ393	M.RESISTOR CH 1/16W 39K	1	
R273		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R274-76		ERJ3GEYJ681	M.RESISTOR CH 1/16W 680	3	
R277		VRE0071E123	M.RESISTOR	1	
R278		VRE0071E823	RESISTOR	1	
R279		ERJ3GEYJ562	M.RESISTOR CH 1/16W 5.6K	1	
R280		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R281-83		ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	3	
R284		ERJ3GEYJ330	M.RESISTOR CH 1/16W 33	1	
R285,86		ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	2	
R287		ERJ3GEYJ330	M.RESISTOR CH 1/16W 33	1	
R288,89		ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	2	
R290		ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	1	
R291-93		ERJ3GEY0R00	M.RESISTOR 1/16W 0	3	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
X201		VSX0449	CRYSTAL OSCILLATOR	1	
			MISCELLANEOUS		
		VSC3635	SHIELD COVER (A)	1	
		VSC3636	SHIELD COVER (B)	1	
	■	VEPZ3146E	PROCESS C.B.A.		(RTL)
B301		VJS3024C032	CONNECTOR (FEMALE)	1	
B302		VJP2962A030	CONNECTOR (MALE) 30P	1	
B303		VJP2962A024	CONNECTOR (MALE) 24P	1	
			CAPACITORS		
C301-03		ECST0JY106Z	T.CAPACITOR 6.3V 10U	3	
C304		ECUM1C105ZFM	C.CAPACITOR CH 16V 1U	1	
C305		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C306		ECUM1C105ZFM	C.CAPACITOR CH 16V 1U	1	
C307,08		ECST0JY106Z	T.CAPACITOR 6.3V 10U	2	
C309		ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	1	
C311		ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	1	
C312		ECUM1C224ZFN	C.CAPACITOR CH 16V 0.22U	1	
C313		ECUX1H151JCV	C.CAPACITOR CH 50V 150P	1	
C314,15		ECST0JY106Z	T.CAPACITOR 6.3V 10U	2	
C317		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C318		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C321		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C322		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C323		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C324		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C325		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C326		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C328,29		ECUM1C105ZFM	C.CAPACITOR CH 16V 1U	2	
C330,31		ECUX1H101JCV	C.CAPACITOR CH 50V 100P	2	
C332		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C334		ECST0GY106Z	T.CAPACITOR 4V 10U	1	
C335		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C336		ECUX1H222KBV	C.CAPACITOR CH 50V 2200P	1	
C337-40		ECUX1H560JCV	C.CAPACITOR CH 50V 56P	4	
C341,42		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	2	
C343		ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	
C345-52		ECUX1H330JCV	C.CAPACITOR CH 50V 33P	8	
C357		ECUM1C224ZFN	C.CAPACITOR CH 16V 0.22U	1	
C358-62		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	5	
C363		ECUX1H820JCV	C.CAPACITOR CH 50V 82P	1	
C380,81		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	2	
C701		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C703		ECUX1H151JCV	C.CAPACITOR CH 50V 150P	1	
C704		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C705		ECUM1C683ZFV	C.CAPACITOR CH 16V 0.068U	1	
C706-09		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	4	
C710		ECUM1H473ZFV	C.CAPACITOR CH 50V 0.047U	1	
C711		ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	1	
C712		ECUX1H560JCV	C.CAPACITOR CH 50V 56P	1	
C713,14		ECUM1C224ZFN	C.CAPACITOR CH 16V 0.22U	2	
C715		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C716		ECUM1C224ZFN	C.CAPACITOR CH 16V 0.22U	1	
C717		ECST1CY335Z	T.CAPACITOR 16V 3.3U	1	
C718		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C719		ECST0GY106Z	T.CAPACITOR 4V 10U	1	
C720,21		ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	2	
C722-24		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	3	
C726		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C727		ECEV1EA330	E.CAPACITOR CH 25V 33U	1	
C728		ECUX1H332KBV	C.CAPACITOR CH 50V 3300P	1	
C729,30		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	2	
C731		ECUX1H472KBV	C.CAPACITOR CH 50V 4700P	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C732		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C733		ECUX1H472KBV	C.CAPACITOR CH 50V 4700P	1	
C734		ECUX1H560JCV	C.CAPACITOR CH 50V 56P	1	
C738		ECUM1C105ZFM	C.CAPACITOR CH 16V 1U	1	
C746		ECUM1C225ZFM	C.CAPACITOR CH 16V 2.2U	1	
C747		ECEV0JA470	E.CAPACITOR 6.3V 47U	1	
C748		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
D301		MA110	DIODE	1	
D302		MA728	DIODE	1	
D701		MA110	DIODE	1	
FP301		VJS2958D017	CONNECTOR (FEMALE)	1	
FP701		VJS2959B024	CONNECTOR (FEMALE)	1	
IC301		MN4791S	IC	1	
IC302,03		ZA4030		2	
IC304		MN6733	IC	1	
IC305		TC7S04F	IC	1	
IC306		MN6732	IC	1	
IC307		MN655431SH	IC	1	
IC308		MN73512XWAS	IC	1	
IC309		MN1882010V4Q	IC	1	
IC310		AK6420F	IC	1	
IC311		MN13821-Y	IC	1	
IC312		MN1882010V6K	IC	1	
IC315		MN657011H	IC	1	
IC316		MN76039VSU	IC	1	
IC317		AN2040SB	IC	1	
IC318		TC7S08F	IC	1	
IC319,20		TC7S32F	IC	2	
IC330		M62352GP	IC	1	
IC701		MN12821Q	IC	1	
IC702		MN6781VMDB	IC	1	
IC703		AN2585FAP	IC	1	
IC704		LM358DB	IC	1	
IC705		LM324DB	IC	1	
IC706		AN6663S	IC	1	
IC707		AN6545SP	IC	1	
IC708		TB6504F	IC	1	
IC709		TC7S08F	IC	1	
L301		ELJPC6R8KB	COIL 6.8UH	1	
L302-04		VLQ0426J101	COIL 100UH	3	
L305		ELJFC150KB	COIL 15UH	1	
L306-11		ELJPC6R8KB	COIL 6.8UH	6	
L312		VLQ0291	COIL	1	
L313,14		ELJPC6R8KB	COIL 6.8UH	2	
L315		VLQ0291	COIL	1	
L316,17		ELJPC6R8KB	COIL 6.8UH	2	
L320		VLQ0426J330	COIL 33UH	1	
L322		ELJPC6R8KB	COIL 6.8UH	1	
L324		VLQ0584	FILTER	1	
L702		ELJPA101KB	COIL	1	
L703		ELJFC150KB	COIL 15UH	1	
L704		ELJFA150KB	COIL 15UH	1	
L705		ELJPA150KB	COIL 15UH	1	
P305		VJP3172B005	CONNECTOR (MALE)	1	
Q305		2SC4176	TRANSISTOR	1	
Q701		2SD1819	TRANSISTOR	1	
Q702		2SD2210	TRANSISTOR	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
QR301		UN5213	TRANSISTOR	1	
QR701,02		UN5211	TRANSISTOR-RESISTOR	2	
			RESISTORS		
R301		ERJ3GEYJ563	M.RESISTOR CH 1/16W 56K	1	
R302,03		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	2	
R304		ERJ3GEYJ271	M.RESISTOR CH 1/16W 270	1	
R305,06		ERJ3GEYJ472	M.RESISTOR 1/16W 4.7K	2	
R307		ERJ3GEYJ273	M.RESISTOR CH 1/16W 27K	1	
R308,09		ERJ3GEYJ472	M.RESISTOR 1/16W 4.7K	2	
R310		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	1	
R311		ERJ3GEYJ560	M.RESISTOR CH 1/16W 56	1	
R313		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	1	
R314		ERJ3GEY0R00	M.RESISTOR 1/16W 0	1	
R315-17		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	3	
R318		ERJ3GEYJ472	M.RESISTOR 1/16W 4.7K	1	
R319		ERJ3GEYJ562	M.RESISTOR CH 1/16W 5.6K	1	
R320		ERJ3GEYJ151	M.RESISTOR CH 1/16W 150	1	
R321,22		ERJ3GEYJ121	M.RESISTOR CH 1/16W 120	2	
R323-26		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	4	
R328		ERJ3GEY0R00	M.RESISTOR 1/16W 0	1	
R329		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R330-33		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	4	
R334		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R335		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	1	
R337		ERJ3GEYJ273	M.RESISTOR CH 1/16W 27K	1	
R338,39		ERJ3GEYJ472	M.RESISTOR 1/16W 4.7K	2	
R340		ERJ3GEYJ273	M.RESISTOR CH 1/16W 27K	1	
R341		ERJ3GEYJ821	M.RESISTOR CH 1/16W 820	1	
R342,43		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	2	
R344-47		ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	4	
R348-50		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	3	
R351,52		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	2	
R353-55		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	3	
R357-63		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	7	
R364		ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R365-71		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	7	
R372		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R374-81		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	8	
R382,83		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	2	
R384		ERJ3GEY0R00	M.RESISTOR 1/16W 0	1	
R387-89		ERJ3GEYJ472	M.RESISTOR 1/16W 4.7K	3	
R390,91		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	2	
R392		ERJ3GEYJ122	M.RESISTOR CH 1/16W 1.2K	1	
R393		ERJ3GEYJ472	M.RESISTOR 1/16W 4.7K	1	
R394		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	1	
R396,97		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	2	
R398		ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	1	
R399-02		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	4	
R403		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R405-21		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	17	
R422		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R424		ERJ3GEYJ273	M.RESISTOR CH 1/16W 27K	1	
R425		ERJ3GEYJ393	M.RESISTOR CH 1/16W 39K	1	
R426-49		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	24	
R450,51		ERJ3GEYJ472	M.RESISTOR 1/16W 4.7K	2	
R452-58		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	7	
R460-62		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	3	
R464		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R465,66		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	2	
R467		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R468-89		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	22	
R490		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R492		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R493		ERJ3GEYJ471	M.RESISTOR 1/16W 470	1	
R494,95		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	2	
R499		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	1	
R500		ERJ3GEYJ472	M.RESISTOR 1/16W 4.7K	1	
R501		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	1	
R502		ERJ3GEYJ472	M.RESISTOR 1/16W 4.7K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R504		ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R505		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R506-08		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	3	
R701		ERJ3GEYJ563	M.RESISTOR CH 1/16W 56K	1	
R702		ERJ3GEYJ393	M.RESISTOR CH 1/16W 39K	1	
R703		ERJ3GEYG272	M.RESISTOR CH 1/16W 2.7K	1	
R704,05		ERJ3GEYJ472	M.RESISTOR 1/16W 4.7K	2	
R706		ERJ3GEYG222	M.RESISTOR CH 1/16W 2.2K	1	
R707		ERJ3GEYG392	M.RESISTOR CH 1/16W 3.9K	1	
R708		ERJ3GEYJ472	M.RESISTOR 1/16W 4.7K	1	
R710		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R711		ERJ3GEYG103	M.RESISTOR CH 1/16W 10K	1	
R712		ERJ3GEYG303	M.RESISTOR CH 1/16W 30K	1	
R713		ERJ3GEYJ124	M.RESISTOR CH 1/16W 120K	1	
R714		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R715		ERJ3GEYJ823	M.RESISTOR CH 1/16W 82K	1	
R716		ERJ3GEYJ334	M.RESISTOR CH 1/16W 330K	1	
R717,18		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	2	
R719		ERJ3GEYJ154	M.RESISTOR CH 1/16W 150K	1	
R720		ERJ3GEYJ472	M.RESISTOR 1/16W 4.7K	1	
R721		ERJ3GEYJ225	M.RESISTOR CH 1/16W 2.2M	1	
R722		ERJ3GEYJ152	M.RESISTOR 1/16W 1.5K	1	
R723		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R724		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R725		ERJ3GEYJ472	M.RESISTOR 1/16W 4.7K	1	
R726		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	1	
R727		ERJ3GEYJ123	M.RESISTOR CH 1/16W 12K	1	
R728		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	1	
R729		ERJ3GEYJ123	M.RESISTOR CH 1/16W 12K	1	
R730		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R731		ERJ3GEYJ181	M.RESISTOR CH 1/16W 180	1	
R732-34		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	3	
R735		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R736		ERJ3GEYJ823	M.RESISTOR CH 1/16W 82K	1	
R738		ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	1	
R739		ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	1	
R740		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R741,42		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	2	
R743		ERJ3GEYJ563	M.RESISTOR CH 1/16W 56K	1	
R744		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R745		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	1	
R746		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R747,48		ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	2	
R749		ERJ3GEY0R00	M.RESISTOR 1/16W 0	1	
R750		ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R751		ERJ3GEYJ3R3	M.RESISTOR CH 1/16W 3.3	1	
R752		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R753		ERJ3GEYJ273	M.RESISTOR CH 1/16W 27K	1	
R754		ERJ3GEYJ3R3	M.RESISTOR CH 1/16W 3.3	1	
R755		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R756		ERJ3GEYJ153	M.RESISTOR CH 1/16W 15K	1	
R757		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R759,60		ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	2	
R761		ERJ8GEYJ390		1	
TH701		VRT0032K152		1	
VR701		EVM7JSX30B54	V.RESISTOR 50K	1	
X301,02		EF0V8004B0A		2	
X701		EF0V6754B0A		1	
X702		EF0V8004B0A		1	
			MISCELLANEOUS		
		VSC3637	SHIELD COVER (A)	1	
		VSC3638	SHIELD COVER (B)	1	
		VMZ2077	C.B.A. BARRIER	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
	■	VEP06817B	VTR OPERATION (A) C.B.A.		(RTL)
D6501-06		MA165VT	DIODE	6	
D6507		BR3668S	DIODE	1	
D6508-12		MA165VT	DIODE	5	
D6514-16		MA165VT	DIODE	3	
FP6501		VJS2135	CONNECTOR (FEMALE) 6P	1	
SW6501-07		EVQ21504K	SWITCH	7	
SW6508,09		EVQQSB04B	SWITCH	2	
SW6510		VST0098	SWITCH	1	
SW6512		EVQ21504K	SWITCH	1	
SW6513		EVQQSU04W	SWITCH	1	
SW6514,15		EVQQSB04B	SWITCH	2	
SW6516		EVQQFR02K	SWITCH	1	
SW6517		ESD100121AQ	SWITCH	1	
			MISCELLANEOUS		
		VWJ06C0040AA	JUMPER CONNECTOR 6P	1	(P6501 - VTR OPE.(B)
		VWJ0610	JUMPER CONNECTOR 12P	1	(FP6501-FP6001)
	■	VEP20437A	CAMERA OPERATION (A) C.B.A.		(RTL)
FP6701		VJS2140	CONNECTOR (FEMALE) 17P	1	
P6007		VJS3172D006	CONNECTOR (FEMALE) 6P	1	
P6701		VJP3331B006	CONNECTOR (FEMALE) 6P	1	
P6701		VJS3172D006	CONNECTOR (FEMALE) 6P	1	
SW6701-06		EVQ21804B	SWITCH	6	
SW6707		VSS0126	SWITCH	1	
SW6708		EVQ21804B	SWITCH	1	
SW6710,11		EVQ21804B	SWITCH	2	
SW6713		EVQ21804B	SWITCH	1	
SW6714		VSS0127	SWITCH	1	
SW6715		VSS0126	SWITCH	1	
SW6716,17		EVQ21804B	SWITCH	2	
SW6719		EVQ21804B	SWITCH	1	
SW6722-24		EVQ21804B	SWITCH	3	
			MISCELLANEOUS		
		VEE7784	CONNECTION CABLE	1	(MAIN-CAMERA)
		VWJ0638	CAMERA OPE - PROCESS FLEX	1	(FP5701-FP301)

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
	■	VEP03946B	AV JACK (A) C.B.A.		(RTL)
			CAPACITORS		
C1501		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
D1501,02		MA153	DIODE	2	
FP1501		VJS2134	CONNECTOR (FEMALE)	1	
L1501-04		VLQ0555	FILTER	4	
P1501		VJP1244T	CONNECTOR (MALE) 4P	1	
			MISCELLANEOUS		
		VEJ1289	PLATE	1	
		VGU3435	SWITCH KNOB	2	
	■	VEP03957B	AV JACK (B) C.B.A.		(RTL)
			CAPACITORS		
C1601		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C1602		ECEA1AKS220	E.CAPACITOR 10V 22U	1	
D1601		MA3220	DIODE	1	
D1603		31DQ04	DIODE	1	
D1604		MA151WA	DIODE	1	
D1605		MA715	DIODE	1	
L1601,02		VLP0113	COIL	2	
L1604,05		ELC06D015	COIL H	2	
P1001		VJS1229T	CONNECTOR (FEMALE) 2P	1	
P1601		VJP3318A006	CONNECTOR (FEMALE) 6P	1	
P1601		VJS3172D006	CONNECTOR (FEMALE) 6P	1	
P1602		VJP1231T	CONNECTOR (MALE) 4P	1	
P1603		VJP1229T	CONNECTOR (MALE) 2P	1	
P1604		VJP1229R	CONNECTOR (MALE) 2P	1	
P6008		VJS3172B006	CONNECTOR (MALE) 6P	1	
PJ1605		VJP1253	CONNECTOR (MALE) 2P	1	
Q1601		2SB936-P	TRANSISTOR	1	
Q1602		2SD601	TRANSISTOR CHIP	1	(Q,R,S)
Q1603		2SB709	TRANSISTOR CHIP	1	(Q,R,S)
Q1604		2SD601	TRANSISTOR CHIP	1	(Q,R,S)

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
			RESISTORS		
R1601		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R1602		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R1603		ERJ8GEYJ152	M.RESISTOR CH 1/8W 1.5K	1	
R1604		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R1605		ERJ3GEYJ682	M.RESISTOR 1/16W 6.8K	1	
R1606		VSF0059	FUSE	1	<!>
R1607		ERJ3GEYJ181	M.RESISTOR CH 1/16W 180	1	
R1609		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R1610		ERJ3GEYJ393	M.RESISTOR CH 1/16W 39K	1	
R1611		ERJ8GEYJ152	M.RESISTOR CH 1/8W 1.5K	1	
R1612		ERJ3GEYJ472	M.RESISTOR 1/16W 4.7K	1	
R1613		ERJ3GEYJ3R3	M.RESISTOR CH 1/16W 3.3	1	
R1614,15		ERJ8GEYJR68	M.RESISTOR CH 1/8W 0.68	2	
Z1601		VSB0166		1	
			MISCELLANEOUS		
		VEE8184	A MECHA SHASIS EARTH CABLE	1	
		VEE7788	POWER JACK (B) CABLE UNIT	1	
	■	VEK5868	FE HEAD C.B.A.		(RTL)
			CAPACITORS		
C1901		ECEA1CKS100	E.CAPACITOR 16V 10U	1	
C1902		VCYD1E103MR	.CAPACITOR V	1	
C1903		VCYD1E682KH	.CAPACITOR V	1	
C1904		ECQV1H563JZ	P.CAPACITOR 50V 0.056U	1	
L1901		VLQEL05F221K	COIL 220UH	1	
Q1901		2SC2603AE2F	TRANSISTOR	1	
			RESISTORS		
R1901		ERDS2TJ822	C.RESISTOR 1/4W 8.2K	1	
T1901		VLQ0586	TRANSFORMER	1	
	■	VEP22123A	CCD FLEXIBLE CARD C.B.A.		(RTL)
			MISCELLANEOUS		
		ECST1VX225Z	T.CAPACITOR 35V 2.2U	1	
		ECUV1E104ZFN	C.CAPACITOR 25V 0.1U	1	
		ECUV1E473ZFN	C.CAPACITOR 25V 0.047U	2	
		ERJ6GEYF472	M.RESISTOR 4700P	1	
		ERJ6GEYF560	M.RESISTOR 56P	1	
		ERJ6GEY0R00	M.RESISTOR 0	1	
		MA153	DIODE	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
		VJS2961C012	CONNECTOR (FEMALE)	1	
		2SC2295	TRANSISTOR	1	
		VJB22123	CCD FLEXIBLE	1	
		VEK7024	LENS FLEXIBLE CARD C.B.A.	1	
			MISCELLANEOUS		
		ON1004-R	PHOTO COUPLER	3	
	■	VEK5865	CHARA/GENE C.B.A.		(RTL)
			CONNECTORS		
P1402		VJJ0163	JACK	1	
P3001		VJS3172B005	CONNECTOR (FEMALE)	1	
			MISCELLANEOUS		
		VEE7793	CONNECTION CABLE	1	
	■	VES0689	MECHANISM CONNECTION C.B.A.		(RTL)
			(MODE SELECT SWITCH UNIT)		
			MISCELLANEOUS	1	
		ON2170	PHOTO COUPLER	1	
		VJP1229R	CONNECTOR (MALE)	1	
		VJP3318A008	CONNECTOR (MALE)	1	
		VEE2015	CABLE	1	
		VMX1280	SENSOR SPACER	1	

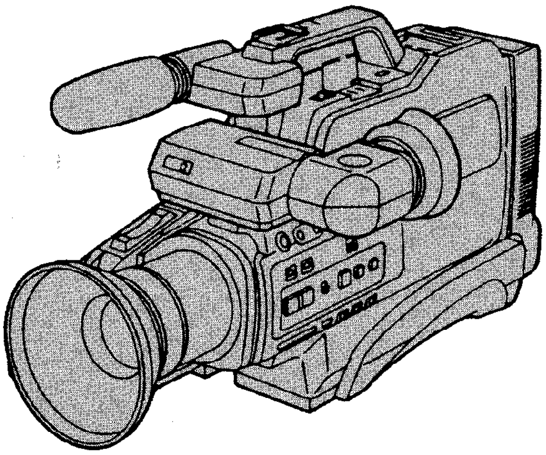
ORDER NO. VRD9207M138

Service Manual

Panasonic VHS
PAL

HQ

VHS Movie



NV-M40$^{E}_{A}$
NV-M3000$^{EN}_{EM}$
NV-M3300MC

- **SPECIFICATIONS/ТЕХНИЧЕСКИЕ ХАРАКТЕРИСТИКИ**
- **TECHNICAL INFORMATION/ТЕХНИЧЕСКАЯ ИНФОРМАЦИЯ**
- **ADJUSTMENT PROCEDURES/ПРОЦЕДУРЫ РЕГУЛИРОВКИ**
- **BLOCK DIAGRAMS & SCHEMATIC DIAGRAMS/БЛОК-СХЕМЫ И ПРИНЦИПИАЛЬНЫЕ СХЕМЫ**
  - CCD drive block diagram/блок-схема управления ПЗС матрицы
  - Auto focus block diagram/блок-схема автоматической фокусировки
  - Process block diagram/блок-схема обработки видеосигнала
  - Power block diagram/ блок-схема электропитания
  - System control & servo block diagram/блок - схема системы управления и сервопривода
  - Luminance/chrominance & head AMP block diagram/блок-схема каналов яркости/цветности и усилителя видеоголовок
  - CCD drive schematic diagram/принципиальная схема управления ПЗС матрицы
  - Process, camera operation & CCD unit schematic diagram/принципиальная схема обработки видеосигнала, выбора режимов работы и блока ПЗС матрицы
  - Auto focus schematic diagram/принципиальная схема автоматической фокусировки
  - EVF schematic diagram/принципиальная схема видоискателя
  - Power schematic diagram/принципиальная схема электропитания
  - System control & servo schematic diagram/принципиальная схема системы управления и сервопривода
  - Sub servo schematic diagram/принципиальная схема сервопривода
  - Luminance/chrominance & head AMP schematic diagram/принципиальная схема каналов яркости/цветности и усилителя видеоголовок
  - Audio schematic diagram/принципиальная схема аудиоусилителя
  - AV jack (A) schematic diagram/принципиальная схема аудио/видео разъема (A)
  - AV jack (B) schematic diagram/принципиальная схема аудио/видео разъема (B)
  - VTR operation schematic diagram/принципиальная схема блока управления видеомагнитофоном
  - Circuit board layout/размещение монтажных плат
  - Interconnection schematic diagram/схема соединений
- **EXPLODED VIEWS & PARTS LIST/СБОРОЧНЫЕ ЧЕРТЕЖИ И СПИСКИ ЗАПАСНЫХ ЧАСТЕЙ**
  - VTR mechanism section (1)/механизм видеомагнитофона (секция 1)
  - VTR mechanism section (2)/механизм видеомагнитофона (секция 2)
  - Camera lens section/модуль оптики
  - Frame & casing parts section (1)/корпус и шасси (секция 1)
  - Frame & casing parts section (2)/корпус и шасси (секция 2)
  - EVF section/видоискатель
  - Packing parts & accessories section (NV-M40E/A, NV-M3000EN, NV-M3300MC)/упаковочные материалы и принадлежности (NV-M40E/A, NV-M3000EN, NV-M3300MC)
  - Packing parts & accessories section (NV-M3000EM)/упаковочные материалы и принадлежности (NV-M3000EM)
  - Mechanical replacement parts list/список механических запасных частей
  - Electrical replacement parts list/список электрических запасных частей

Panasonic

SPECIFICATIONS

ITEM	SPECIFICATION
POWER	Source: BATTERY; DC 12V Consumption; Recording mode; 8.7W (Battery operation) 17.8W (with Zoom Auto Light)
VIDEO RECORDING SYSTEM	4 rotary heads, helical scanning system PAL
TAPE FORMAT	VHS-C Cassette Tape (Tape width 12.7mm)
TAPE SPEED	23.39mm/s Record/Playback Time 240min. with NV-E240 FF/REW Time less than 12min. with NV-E180
CAMERA	PICK-UP ELEMENT: CCD (Charge Coupled Device)
	STANDARD ILLUMINATION: 1,400 lux
	MINIMUM REQUIRED ILLUMINATION: 1 lux
	LENS: Built-in 8 : 1 2-Speed Power Zoom Lens with Digital AI Auto Focus, Auto Iris, Manual/Auto Focus System, F1.4 (5~40mm), Filter Diameter 49mm
	IMAGE SENSOR: 1/3 inch CCD Image Sensor
	VIEW FINDER: 0.7″ Electric View Finder

ITEM	SPECIFICATION
VIDEO	HEADS: 4 rotary heads, 1 flging erase head
	OUTPUT: PHONO CONNECTOR; 1.0Vp-p 75Ω unbalanced
AUDIO	HEAD: 1 Stationary head (Normal Audio)
	INPUT: MIC IN (M3); −70dB, 4.7kΩ unbalanced
	OUTPUT: PHONO CONNECTOR; −8dB, 47kΩ loaded EARPHONE JACK (M3); −28dB, 8Ω unbalanced
WEIGHT	Approx. 2.6kg (without Battery Pack)
DIMENSIONS	230(W) × 245(H) × 459(D)mm
STANDARD ACCESSORIES	1 pc. AC Adaptor 1 pc. Battery Pack 1 pc. Shoulder Strap 1 pc. AV Output Cable 1 pc. DC Input Cable 1 pc. RF Adaptor (NV-M40A) 1 pc. Auto Light 1 pc. Battery Pack Charging Connector 1 pc. System Carrying Case (NV-M3000EM)

Weight and dimensions shown are approximate.
Specifications are subject to change without notice.

Technical Information

Service caution

1–1. Service Extension Cables

Use the following extension cables when checking or adjusting the individual circuit boards.

	PART NBR	PART NAME	CONNECTION	Q'TY
1	VFK0667	30 PIN EXTENSION CABLE	MAIN C.B.A. B3001~PROCESS C.B.A. B302	1
2	VFK0724	32 PIN EXTENSION CABLE	SENSOR C.B.A. B201~PROCESS C.B.A. B301	1
3	VFK0783	12 PIN EXTENSION CABLE	CCD UNIT~SENSOR C.B.A. B202	1
4	VFK0802	24 PIN FLAT CABLE	LENS UNIT~PROCESS C.B.A. FP701	1
5	VFK0823	6 PIN FLAT CABLE	PROCESS C.B.A. FP301~CAMERA OPERATION C.B.A. FP6701	1

How to use extension cables.

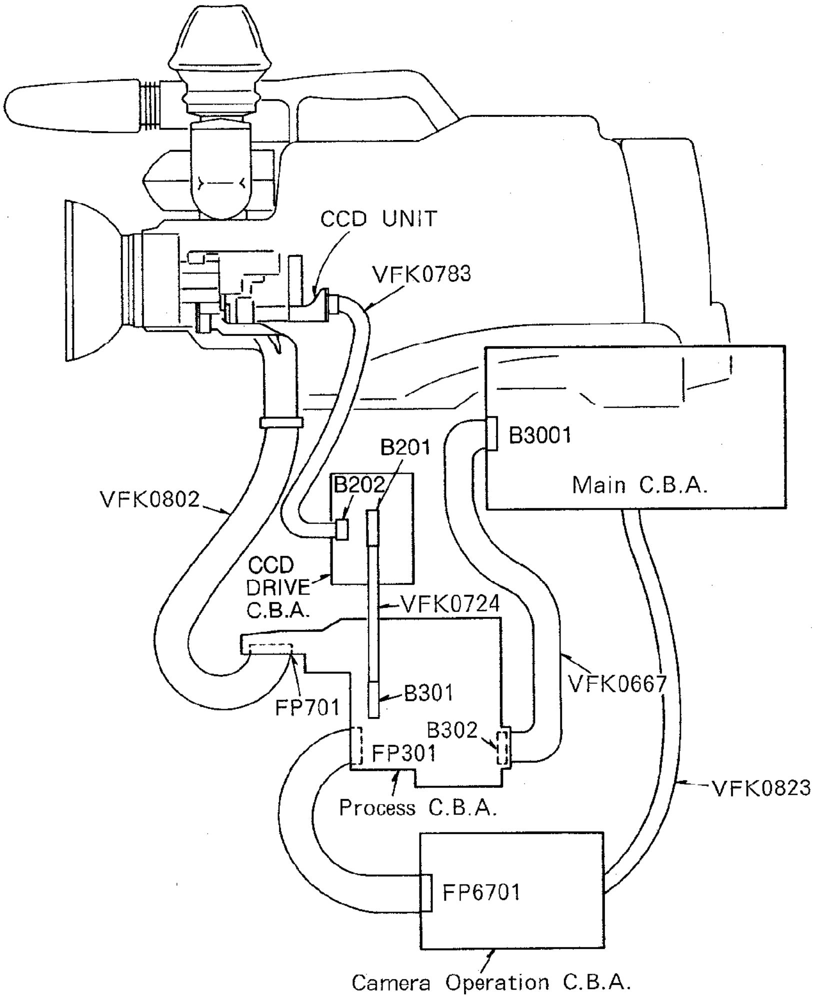
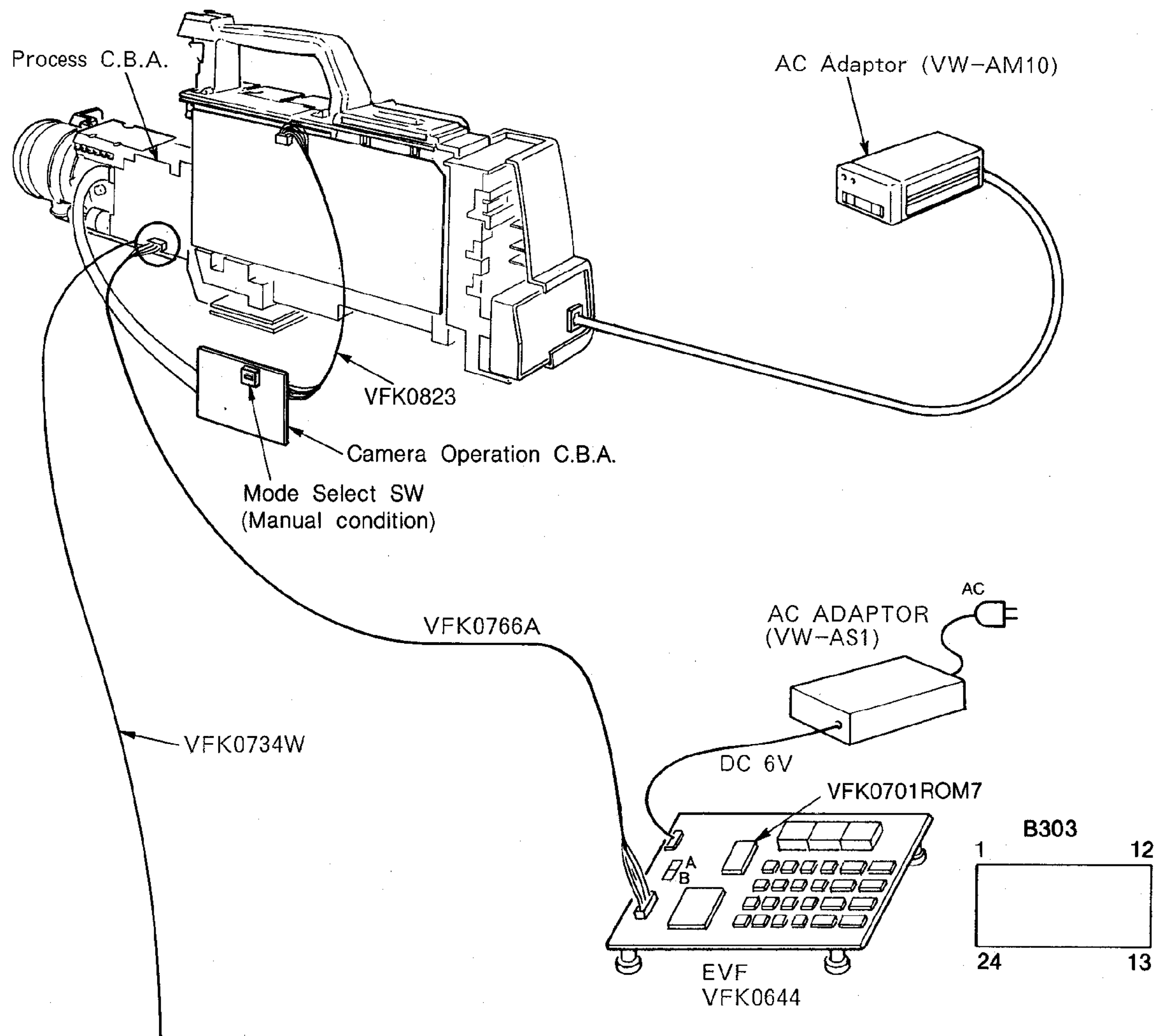
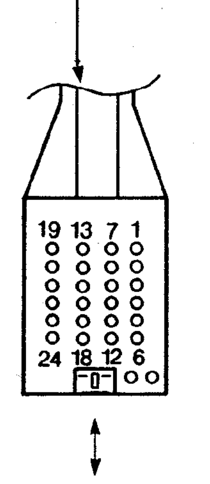

CCD UNIT
VFK0783
B3001
Main C.B.A.
B201
B202
VFK0802
CCD DRIVE C.B.A.
VFK0724
VFK0667
FP701
B301
B302
FP301
Process C.B.A.
VFK0823
FP6701
Camera Operation C.B.A.

Fig. T1


Process C.B.A.
AC Adaptor (VW–AM10)
VFK0823
Camera Operation C.B.A.
Mode Select SW
(Manual condition)
VFK0766A
AC
AC ADAPTOR
(VW–AS1)
VFK0734W
DC 6V
VFK0701ROM7
A
B
EVF
VFK0644
B303
1
12
24
13


19 13 7 1
24 18 12 6

Connect the VFK0766A

Note:
VFK0734 is 24 PIN connection cable for Measurement
Pin Arrangement of VFK0734W is same as B303.

PIN ARRANGEMENT OF B303

1	CAMERA CLOCK
2	SID
3	VD
4	Y SIGNAL
5	CDS OUT
6	A/D IN
7	Vref H
8	Vref T
9	OP2
10	WIDE
11	IRIS OPEN
12	FH2B
13	GND
14	5V
15	TELE
16	Z.ENC
17	Vref–T
18	Vref–L
19	SUB
20	AGC IN
21	AF CLOCK
22	AF DATA
23	CAMERA TEST
24	GND

Fig. T2

1–2. New ROM IC for EVR fixture.

We are pleased to introduce the new ROM IC (VFK0701ROM7) for EVR fixture that we developed to adjust this Movie Camera.
This ROM IC will provide you with many superior futures as automatic calculation of auto white balance and/or colour reproduction and more.

We are also pleased to introduce the new connecting cables (VFK0766A & VFK0734W) for this Movie Camera and EVR Fixture (VFK0644).

Connections between this Movie Camera and EVR fixture are soloderless when using the VFK0766A and VFK0734W.
Please refer to Fig.T3 for how to use the cables.

ROM NUMBER & availabilty	Applicable models & Function	PART NUMBER OF EVR CONNECTION CABLE
VFK0701ROM1 available	NV-MS70/NV-M810/NV-S1/NV-S100 (PAL & NTSC) ① General Adjustment for Camera unit ② Automatic Calculation for AWB & Colour Reproduction ③ Average Data Automatic rewriting	VFK0769
VFK0701ROM2 available	NV-S5/NV-S500 (PAL & NTSC) ① General Adjustment for Camera unit ② Automatic Calculation for AWB & Colour Reproduction ③ Average Data Automatic rewriting	VFK0730
VFK0701ROM3 available	NV-G1/G2/G3 (G100/G200/G300) & NV-MS95/MS950 (PAL ONLY) ① General Adjustment for Camera unit ② Automatic Calculation for AWB & Colour Reproduction ③ Average Data Automatic rewriting	VFK0699
VFK0701ROM4 available	NV-S7/S9 (NTSC ONLY) ① General Adjustment for Camera unit ② Automatic Calculation for AWB & Colour Reproduction ③ Average Data Automatic rewriting	VFK0766A
VFK0701ROM5 available	NV-S7/NV-S700/G220/G202 (PAL ONLY) ① General Adjustment for Camera unit ② Automatic Calculation for AWB & Colour Reproduction ③ Average Data Automatic rewriting	VFK0766A & VFK0734W (NV-S7/S700) VFK0699 (NV-G220/G202)
VFK0701ROM6 available	NV-T1 (NTSC ONLY) ① General Adjustment for Camera unit ② Automatic Calculation for AWB & Colour Reproduction ③ Average Data Automatic rewriting	VFK0766A & VFK0734W
VFK0701ROM7 available	NV-M40/NV-M3000/NV-M3300/(PAL ONLY) ① General Adjustment for Camera unit ② Automatic Calculation for AWB & Colour Reproduction ③ Average Data Automatic rewriting	VFK0766A & VFK0734W

2. Self–diagnostic system and service mode

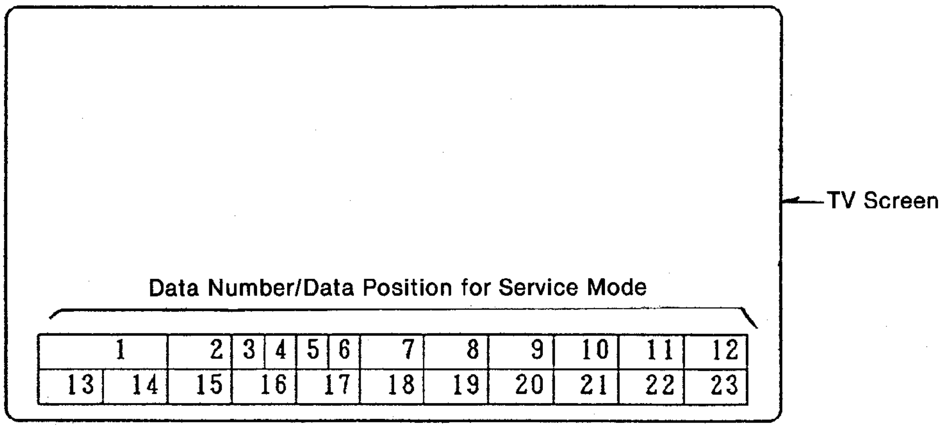
2–1. General

This Movie camera has a self–diagnostic system which faclitates quick trouble shooting.
Pressing the START/STOP Switch and Memory switch simultaneously, same time turn on the Power Switch, After that, unit into Service mode.

2–2. Service Mode

This Movie camera is possible to see RAM data of IC6004 on the TV screen or EVF.
How to read the RAM data is shown in Fig.T3.
All data is displayed in the Hexadecimal Number. (letters and number 0 or F)

Note:
Pressing the START/STOP Switch and Memory switch simultaneously, same time turn on the power switch.
After that this Movie camera Shows data 1 to data 23 on TV screen as shown in Fig.T3–T11.



DATA NUMBER	DATA CONTENTS
1	Data Number 1 is position that indicates Motor conditions data
2~4	Not used
5	Data Number 5 is position that indicates Mechanism positions data
6	Data Number 6 is position that indicates tape condition
7	Data Number 7 is position that indicates key operation informations
8	Data Number 8 is position that indicates I/O condition of IC6004 PIN 118~PIN 125
9	Data Number 9 is position that indicates I/O condition of IC6004 PIN 7~PIN 14
10	Data Number 10 is position that indicates I/O condition of IC6004 PIN 29~PIN 37
11~12	Data Number 11~12 are position that indicates Battery Voltage level
13~14	Not used
15	Not used
16~23	Not used

Fig. T3

2–3. Detail of Data for Service Mode

(1) Data Number 1:
If Data 1 indicate "CYL", There is possibility that cylinder Motor is locked up.

INDICATION AT POSITION 1	CONDITION OF MOTOR
TRL	REEL is locked up
UNLD	Unloading condition
LOAD	Loading condition
CYL	Cylinder Motor is locked up

Fig. T4

(2) Data Number 5:
If Data 5 indicate "01", Mechanism is Eject position.

INDICATION AT POSITION 5	MECHANISM CONDITION
01	EJECT
02	EJECT
03	STOP
04	———
05	S-LOAD
06	———
07	PRE-PAUSE
08	———
09	PAUSE
0A	———
0B	REVIEW
0C	———
0D	PLAY

Fig. T5

(3) Data Number 6:
If Data 6 indicate "A", There is possibility that sensor detect the tape end.

INDICATION AT POSITION 6	TAPE CONDITION
0	Normal condition
3	There is no video cassette inside
9	Detect the begining of Tape
A	Detect the Tape end

Fig. T6

(4) Data Number 7:
When the pushed STOP key, Data 7 indicate

INDICATION AT POSITION 7	KEY OPERATION
00	STOP
01	EJECT
02	REWIND
03	FF
04	REVIEW
05	CUE
06	PAUSE
08	REC
09	A. DUB
0A	PLAY
0C	F. ADV
54	COUNTER CLEAR
55	COUNTER MEMORY
57	OSD ON/OFF
67	DATE ON/OFF
9F	EDIT
B1	TRACKING UP
B2	TRACKING DOWN
B3	INSERT
CC	START/STOP
FF	NOP

Fig. T7

(5) Data Number 8:

INDICATION AT POSITION 8	I/O PORT CONDITION FOR I6004
80	Loading Command is output (PIN 125)
40	Unloading Command is output (PIN 124)
20	Not use
10	Audio Mute "H" is output (PIN 122)
8	Not use
4	Audio EE "H" is output (PIN 120)
2	Video EE "H" is output (PIN 119)
1	PB "L" is output (Pin 118)

Fig. T8

(6) Data Number 9

INDICATION AT POSITION 9	I/O PORT CONDITION FOR IC6004
80	SENSOR LED "L" Command is output (IC6004 PIN 14)
40	REMOCON LED "L" Command is output (IC6004 PIN 13)
20	TALLY LED "L" Command is output (IC6004 PIN 12)
10	POWER LED "L" Command is output (IC6004 PIN 11)
8	CYLINDER ON "L" Command is output (IC6004 PIN 10)
4	FULL ERASE ON Command is output (IC6004 PIN 9)
2	CAMERA P. ON Command is output (IC6004 PIN 8)
1	POWER ON Command is output (IC6004 PIN 7)

Fig. T9

(7) Data Number 10

INDICATION AT POSITION 10	I/O PORT CONDITION FOR IC6004
80	DC LIGHT ON Command is output (IC6004 PIN 37)
40	X. TAL ON Command is output (IC6004 PIN 36)
20	———
10	———
8	———
4	———
2	———
1	———

Fig. T10

(8) Data Number 11 and 12

INDICATION AT POSITION 11	INDICATION AT POSITION 12	BATTERY VOLTAGE LEVEL
00~03	10	Less than 10.5 Volt
04~0A	8	10.5~11.0 Volt
0B~0A	4	11.0~11.5 Volt
11~17	2	11.5~12.0 Volt
18~	1	More than 12.0 Volt

Fig. T11

SECTION 2
ADJUSTMENT PROCEDURES

2-1. DETAILED DISSEMBLY METHOD

1. REMOVAL OF SHOULDED PAD/LENS HOOD

(1) Remove the 4 screws(A).
(2) Pull the shoulder PAD.
(3) Remove the Lens Hood.(By roatating counter-clockwise.)

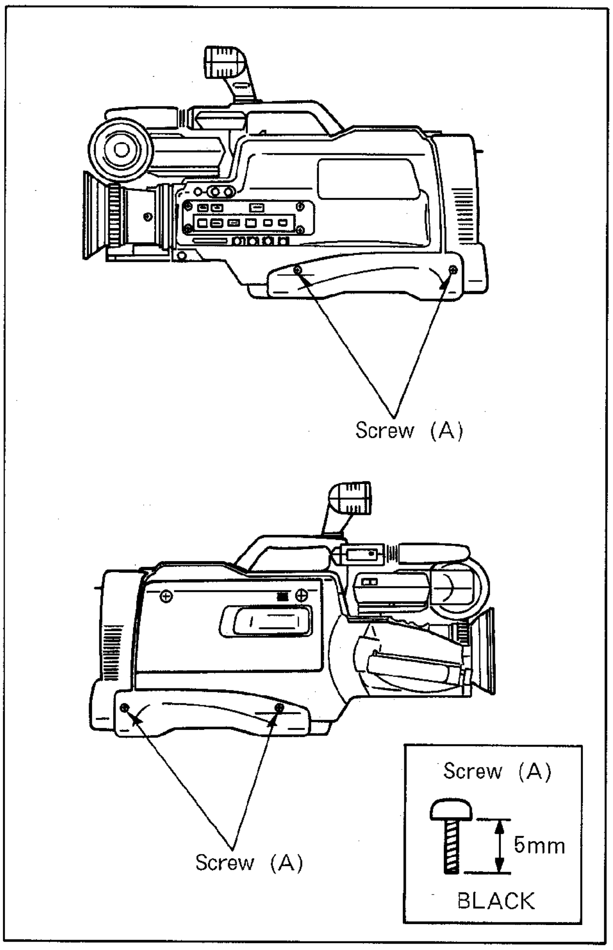

Screw (A)
Screw (A)
Screw (A)
5mm
BLACK

Fig. D1

2. REMOVAL OF CASSETTE COVER

(1) Remove 2 Screws(B).
(2) Pull the Cassette Cover straight up to remove.

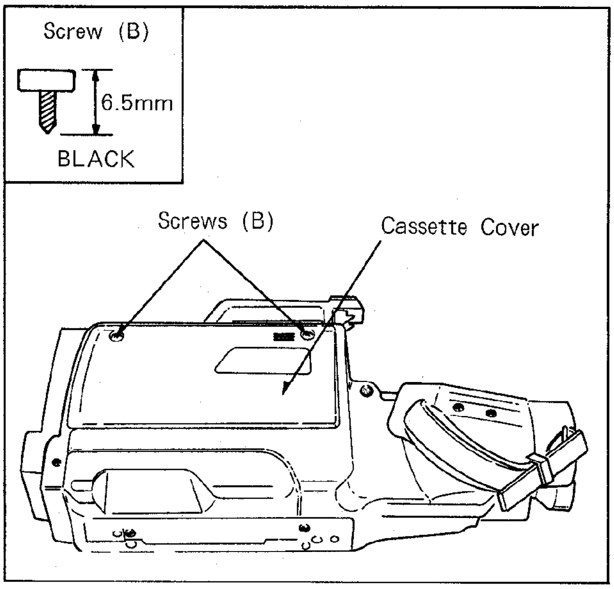

Screw (B)
6.5mm
BLACK
Screws (B)
Cassette Cover

Fig. D2

3. REMOVAL OF THE MIC UNIT

(1) Remove 4 Screws (C), (D) and (E).
(2) Slide the MIC Unit in the direction shown by the arrow.
(3) Disconnect the connector on the MIC Unit.

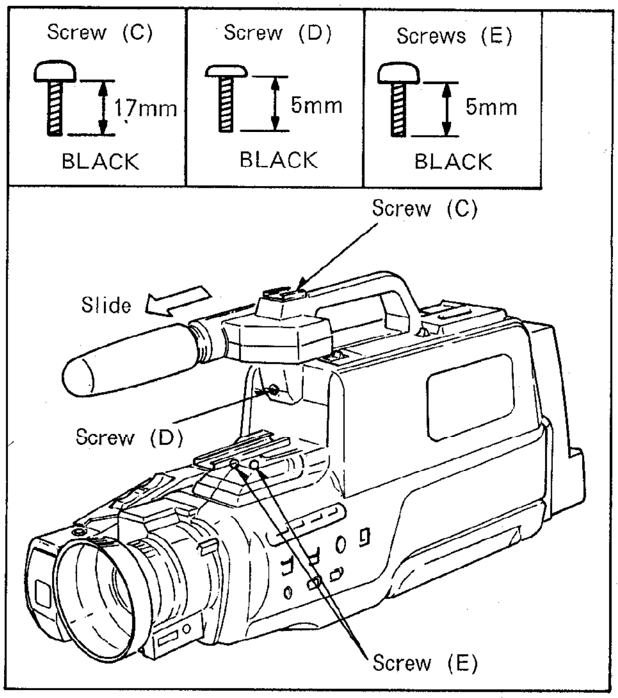

Screw (C)
17mm
BLACK
Screw (D)
5mm
BLACK
Screws (E)
5mm
BLACK
Screw (C)
Slide
Screw (D)
Screw (E)

Fig. D3

4. REMOVAL OF SIDE CASE(R) UNIT

(1) Remove 2 Screws(E) shown in Fig.D3.
(2) Remove 7 Screws(F), 2 Screws(G).
(3) Lift the side case(R) unit slightly.

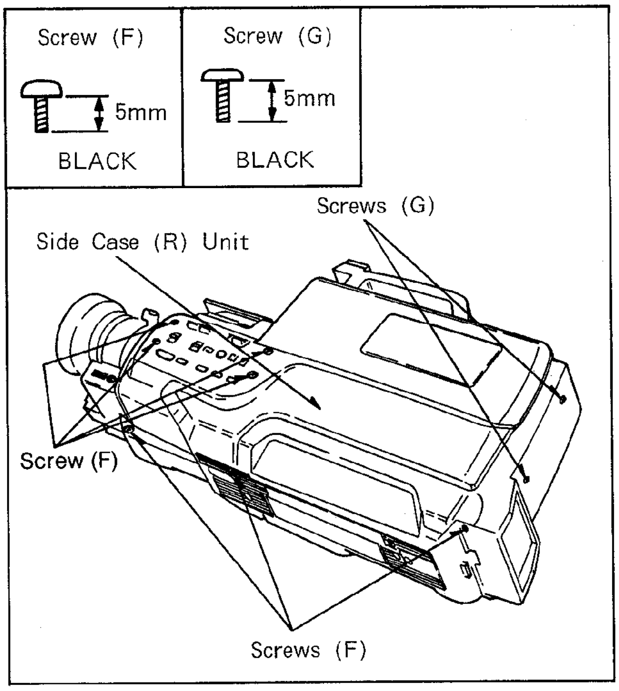

Screw (F)
5mm
BLACK
Screw (G)
5mm
BLACK
Screws (G)
Side Case (R) Unit
Screw (F)
Screws (F)

Fig. D4

5. REMOVAL OF SIDE CASE (L) UNIT

(1) Remove Screw(B), 2 Screws(H), 2 Screws(I) shown in Fig.D5.
(2) Lift the Side Case(L) Unit slightly.
Then Disconnect the connector on Main C.B.A. and Process C.B.A..(EVF, TALLY, ZOOM)

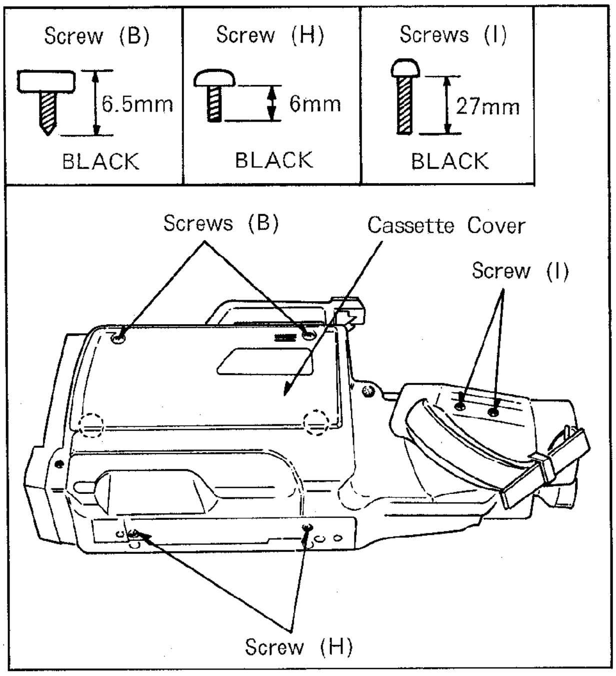

Screw (B)
6.5mm
BLACK
Screw (H)
6mm
BLACK
Screws (I)
27mm
BLACK
Screws (B)
Cassette Cover
Screw (I)
Screw (H)

Fig. D5

6. REMOVAL OF OPERATION PANEL UNIT

(1) Disconnect the connector P6005(Safety tab), and Flexible Connector FP6001(Operation Panel) on Main C.B.A..

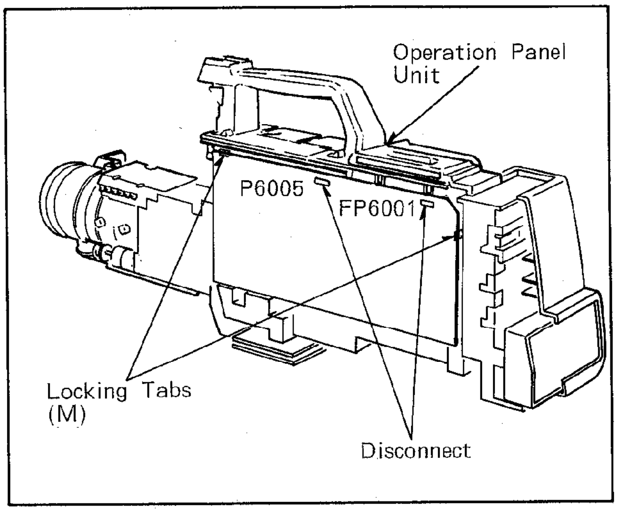

Operation Panel Unit
P6005
FP6001
Locking Tabs (M)
Disconnect

Fig. D6

7. OPENING OF MAIN C.B.A.

(1) Unsnap 2 Locking Tabs(O).
(2) Disconnect the Connector P3001(CHRA:GENE), and B3001.
(3) Open the Main C.B.A..

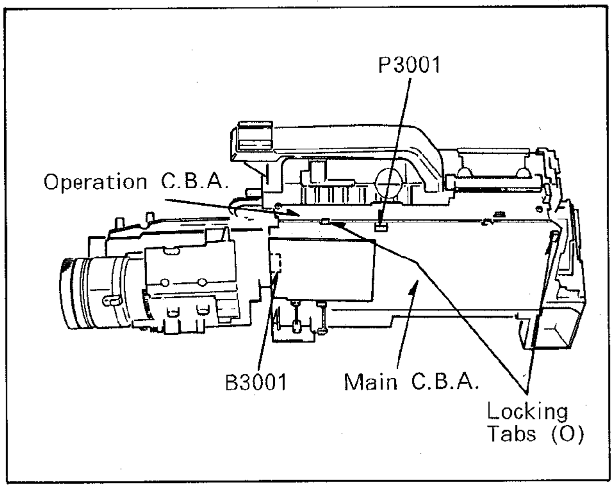

P3001
Operation C.B.A.
B3001
Main C.B.A.
Locking Tabs (O)

Fig. D7

8. REMOVAL OF CAMERA C.B.A.

(1) Remove Screw(J).
(2) Disconnect the Connector B301 and Flexible Connector FP701.
(3) Lift up the camera C.B.A. slightly and then Remove.

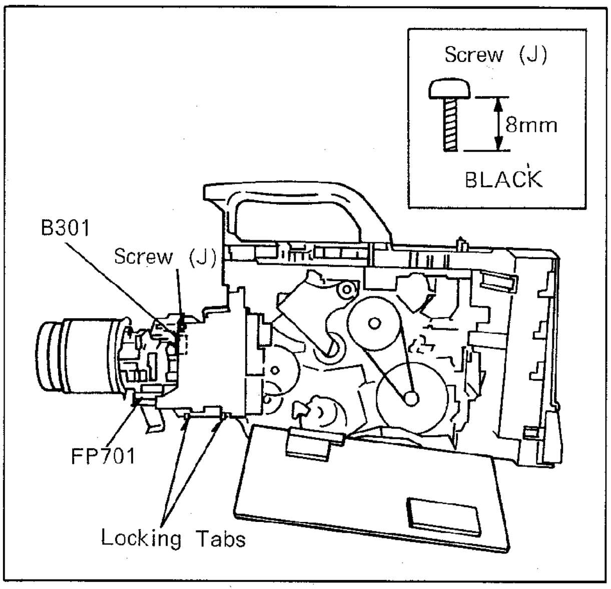

Screw (J)
8mm
BLACK
B301
Screw (J)
FP701
Locking Tabs

Fig. D8

9. REMOVAL OF LENS UNIT

(1) Remove 2 Screws(K).

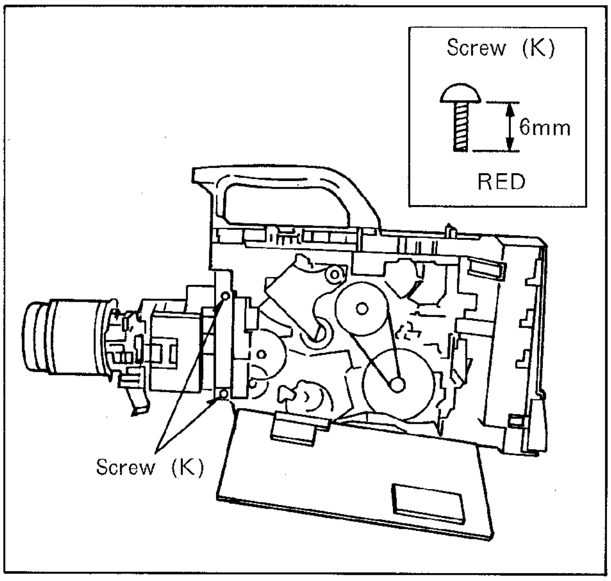

Screw (K)
6mm
RED
Screw (K)

Fig. D9

10. REMOVAL OF SENSOR C.B.A.

(1) Disconnect the Connector B202.
(2) Remove 2 Screw(L).

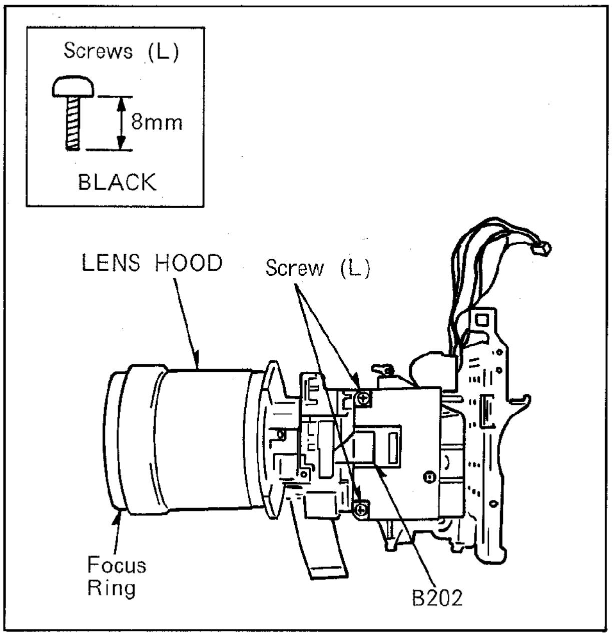

Screws (L)
8mm
BLACK
LENS HOOD
Screw (L)
Focus Ring
B202

Fig. D10

11. REMOVAL OF THE FOCUS RING

Unlock...3 Locking Portion(B).
(By Screwdriver(−))

Set the screwdriver(−) to square hole of the Focus Ring, and then release the locking portion one by one by pushing the screwdriver to the inner direction.

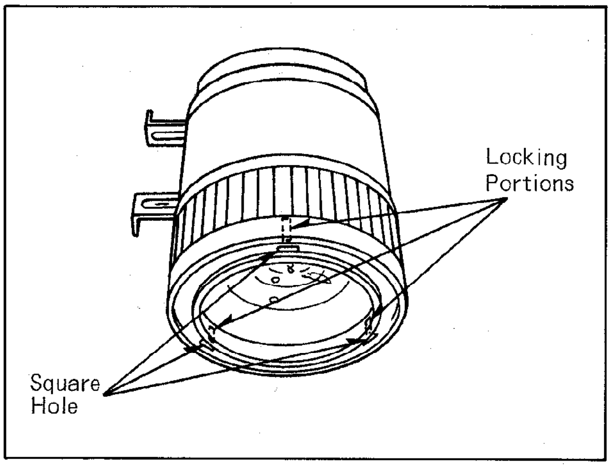

Locking Portions
Square Hole

Fig. D11

12. REMOVAL OF THE LENS COVER

(1) Remove 2 Screws(M).

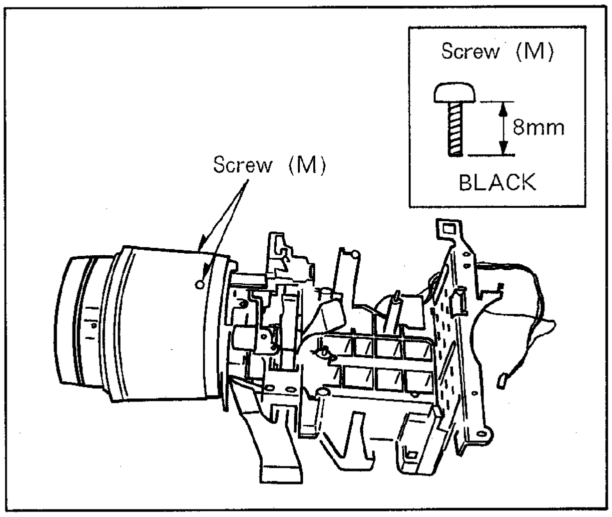

Screw (M)
8mm
BLACK
Screw (M)

Fig. D12

13. REMOVAL OF THE LENS HOLDER

(1) Unlock...4 Locking Portion(A).
(By Screwdriver(−))

Set the screwdriver(−) to square hole of the Lens Holder, and then release the locking portion one by one by pushing the screwdriver to the inner direction.

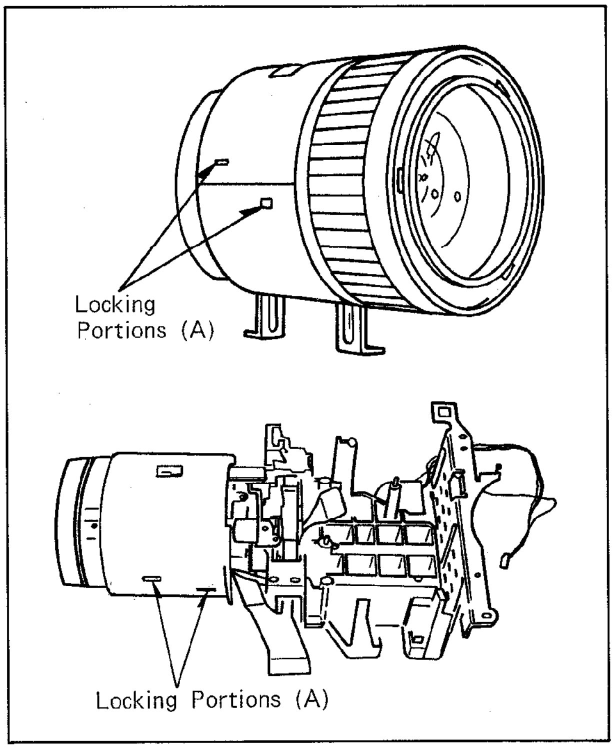

Locking
Portions (A)
Locking Portions (A)

Fig. D13

14. REMOVAL OF THE LENS UNIT

(1) Remove 3 Screws(N).
(2) Remove 2 Locking Portions.

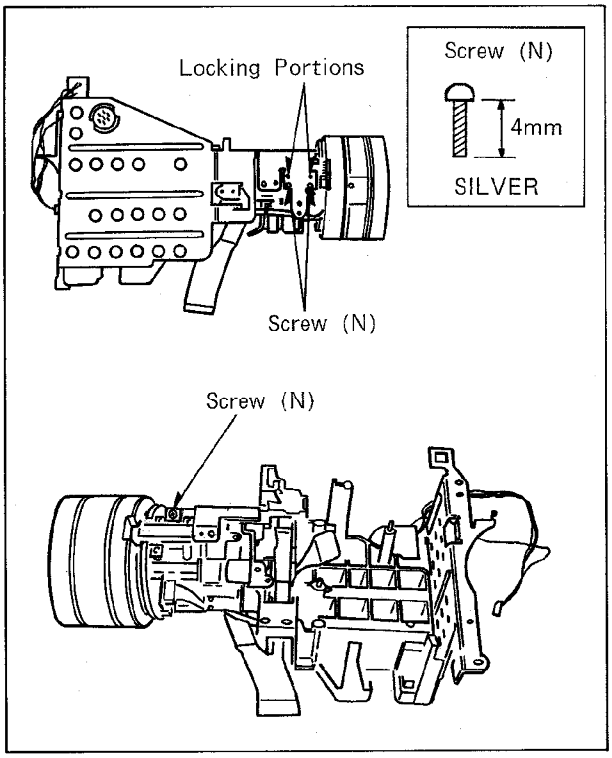

Locking Portions
Screw (N)
4mm
SILVER
Screw (N)
Screw (N)

Fig. D14

15. REMOVAL OF EVF UNIT

(1) Remove 2 Screws (O).

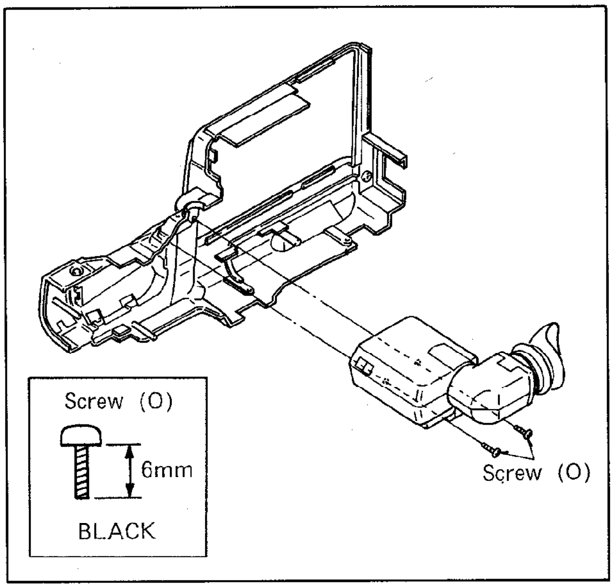

Screw (O)
6mm
BLACK
Screw (O)

Fig. D15

16. DISASSEMBLY OF E.V.F. UNIT

(1) Remove 3 Screws (P) on the bottom of the E.V.F. Unit and then remove the Bottom Case.

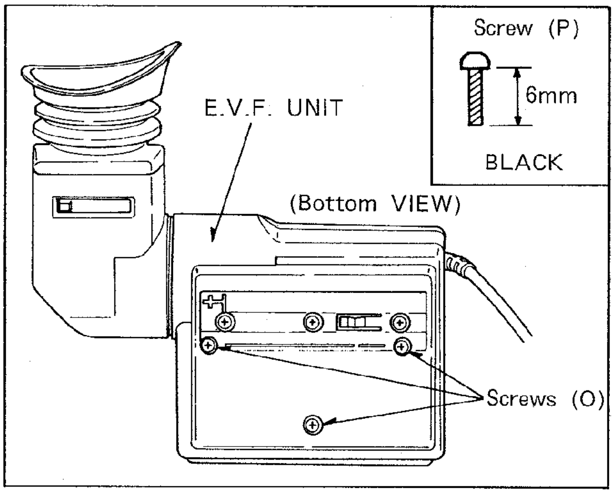

Screw (P)
6mm
BLACK
E.V.F. UNIT
(Bottom VIEW)
Screws (O)

Fig. D16

(2) Lift the CRT Assembly up shown in Fig.D23.

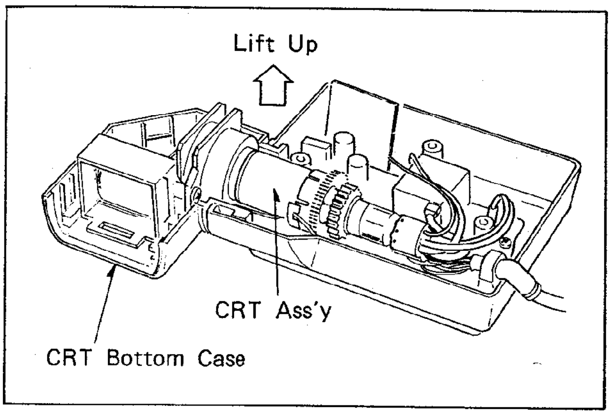

Lift Up
CRT Ass'y
CRT Bottom Case

Fig. D17

(3) Rotate Nut(v) and then pull DY Assembly in the direction shown in Fig.D24 to remove it. Then the CRT can be replaced.
(4) For re-installation, reverse the above steps.

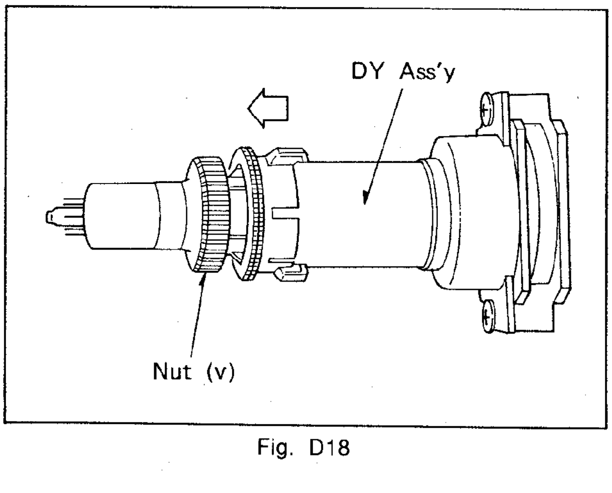
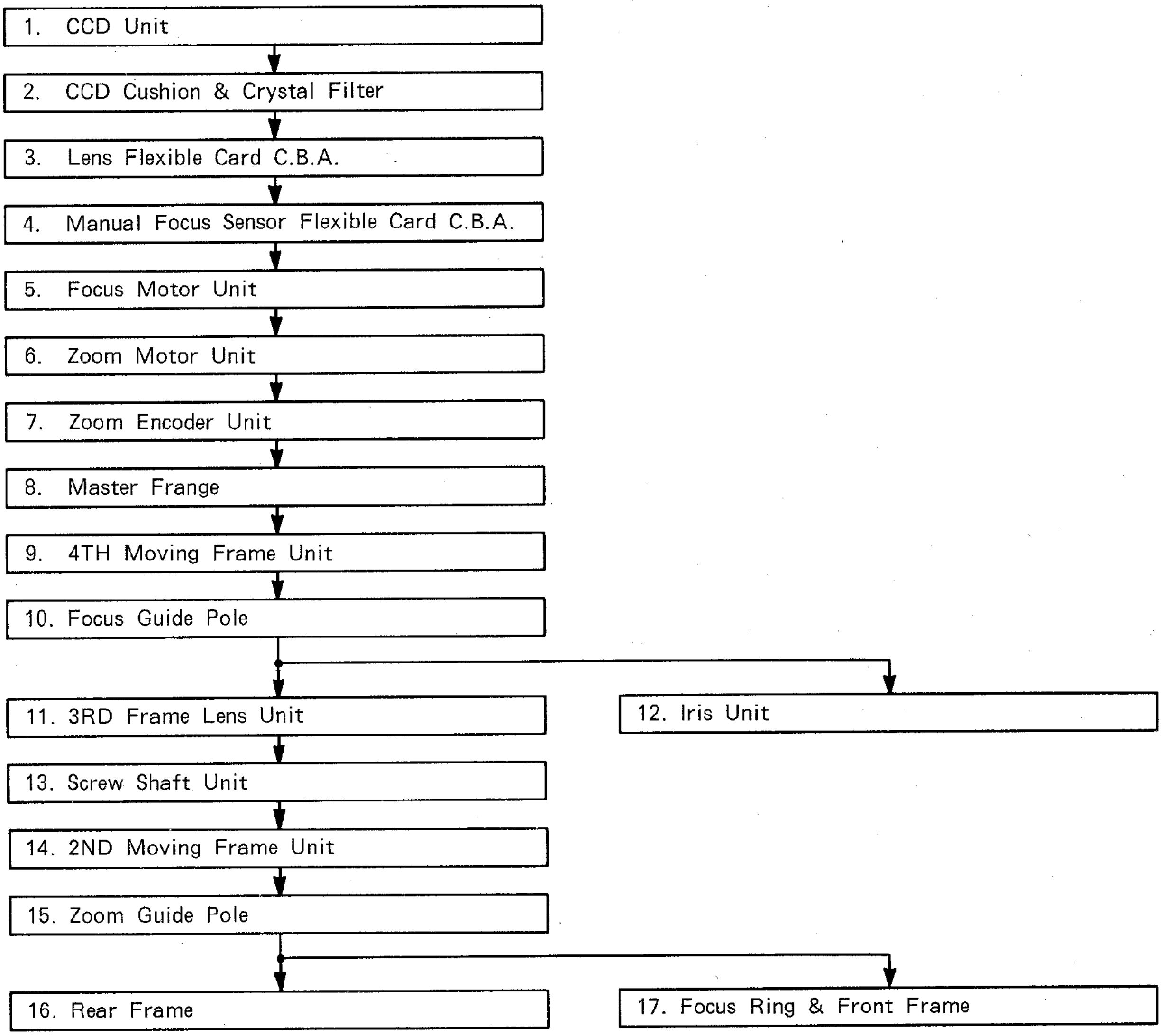

DY Ass'y
Nut (v)

Fig. D18

2-2. DISASSEMBLY PROCEDURES OF ZOOM MOTOR AND FOCUS MOTOR

The following flowchart describes order or steps for removing the Lens Units and certain Printed Circuit Boards in order to make access to the items needing service.
To reassemble the unit follow the steps in reverse order.


1. CCD Unit
2. CCD Cushion & Crystal Filter
3. Lens Flexible Card C.B.A.
4. Manual Focus Sensor Flexible Card C.B.A.
5. Focus Motor Unit
6. Zoom Motor Unit
7. Zoom Encoder Unit
8. Master Frange
9. 4TH Moving Frame Unit
10. Focus Guide Pole
11. 3RD Frame Lens Unit
12. Iris Unit
13. Screw Shaft Unit
14. 2ND Moving Frame Unit
15. Zoom Guide Pole
16. Rear Frame
17. Focus Ring & Front Frame

Note:
Each Item numbers are equivalent to numbers on Fig.L2.

Fig. L1

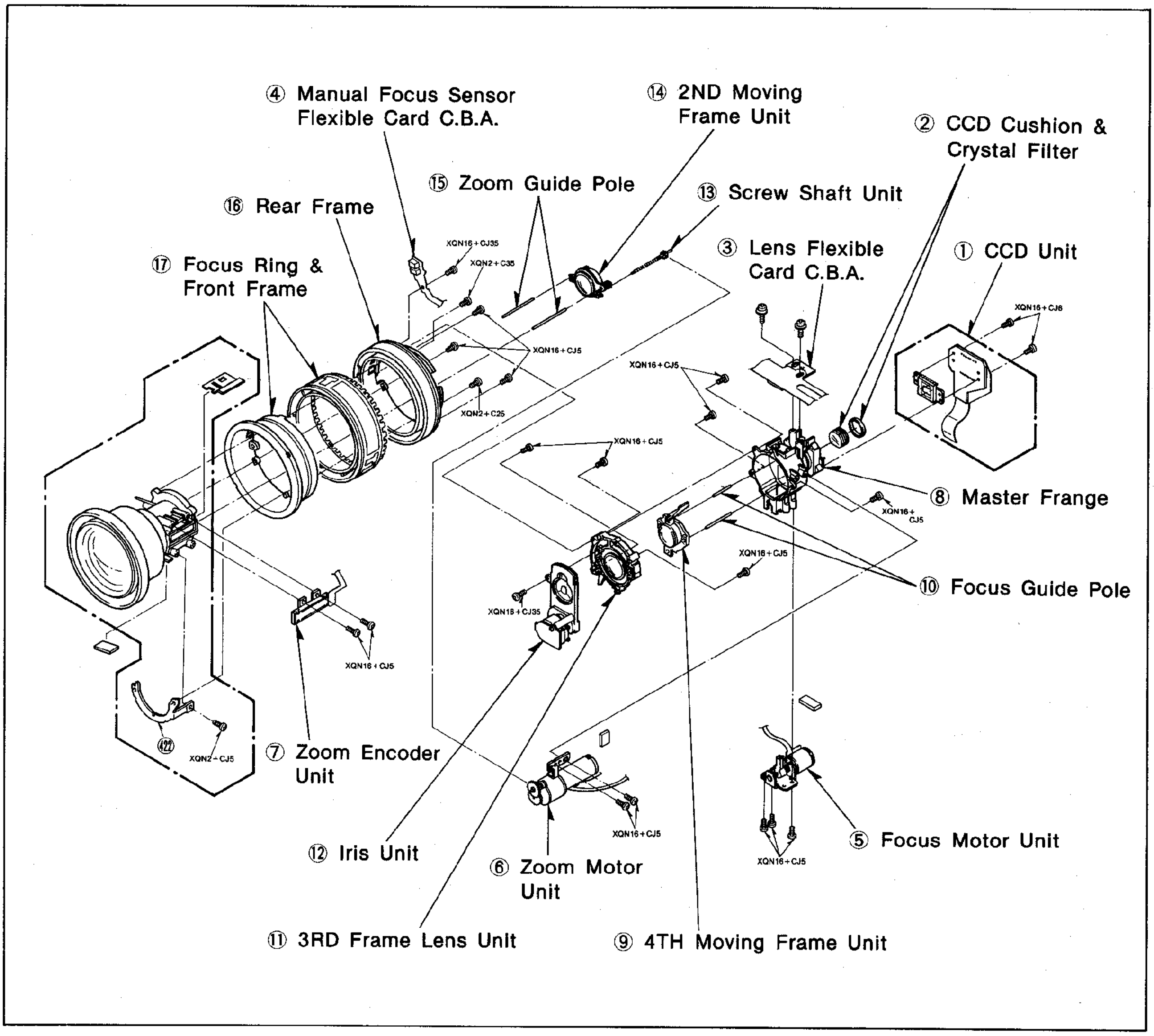

④ Manual Focus Sensor Flexible Card C.B.A.
⑭ 2ND Moving Frame Unit
② CCD Cushion & Crystal Filter
⑮ Zoom Guide Pole
⑬ Screw Shaft Unit
⑯ Rear Frame
③ Lens Flexible Card C.B.A.
① CCD Unit
⑰ Focus Ring & Front Frame
XQN16+CJ35
XQN2+C35
XQN16+CJ6
XQN16+CJ5
XQN16+CJ5
XQN2+C25
XQN16+CJ5
⑧ Master Frange
XQN16+CJ5
XQN16+CJ5
⑩ Focus Guide Pole
XQN16+CJ35
XQN16+CJ5
(422)
XQN2+CJ5
⑦ Zoom Encoder Unit
XQN16+CJ5
⑤ Focus Motor Unit
⑫ Iris Unit
XQN16+CJ5
⑥ Zoom Motor Unit
⑪ 3RD Frame Lens Unit
⑨ 4TH Moving Frame Unit

Fig. L2

2-3. REPLACEMENT PROCEDURES

2-3-1. REPLACEMENT OF THE UPPER CYLINDER UNIT

(1) Preparation.....Removal of Side case.

1. Remove.....4 Screws (Screw (X), (Z)).
2. Remove.....Lift up the cassette frame.

(2) Replacement the upper cylinder.

Work with extremely care when removing or replacing the Upper Cylinder Unit.
Do not touch the Video Head during servicing.

1. Remove 2 screws as shown below.
2. Unsolder 18 soldered portions indicated by arrows on the Circuit Board.
3. Remove the Upper Cylinder Unit by lifting it upward.

Note:
Soldered portion can be easily removed by using solder sucking wire, etc.

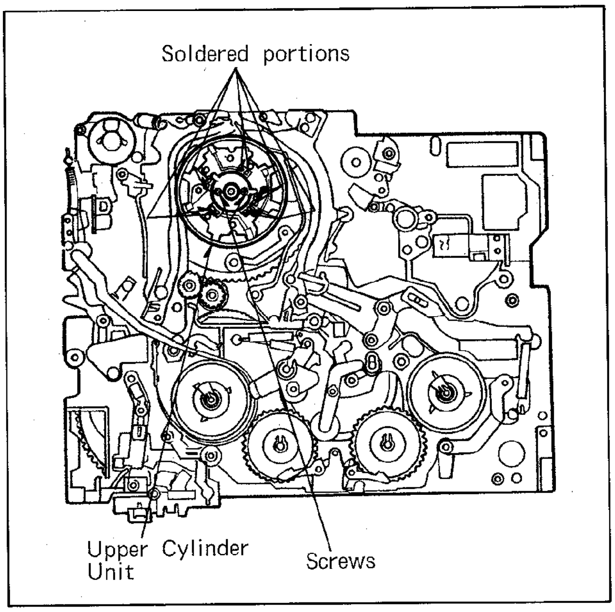

Soldered portions
Upper Cylinder Unit
Screws

Fig. R1

4. The Upper Cylinder Unit can be reinstalled by reversing the removal procedure, however, when the Upper Cylinder is reinstalling, be extremely carefully so that VR1 of upper cylinder should be align 126' from lower cylinder alignment hole as **Fig. R2.**

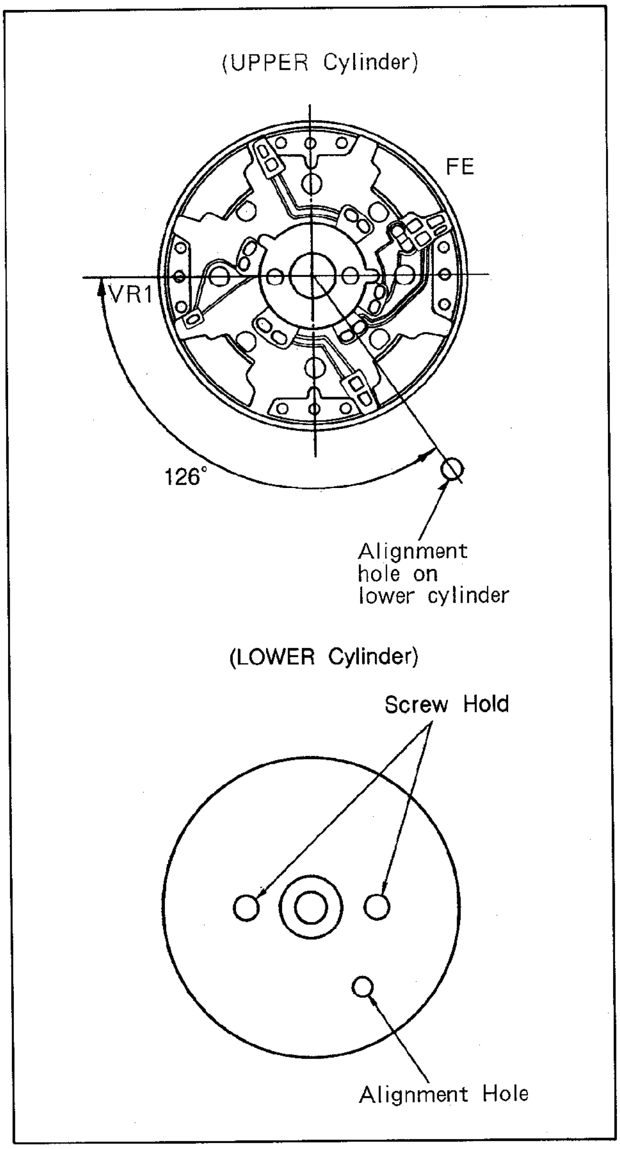

(UPPER Cylinder)
FE
VR1
126°
Alignment hole on lower cylinder
(LOWER Cylinder)
Screw Hold
Alignment Hole

Fig. R2

2-3-2. REPLACEMENT OF DD CYLINDER UNIT

1. Remove the 3 screws and connector.
2. Take out D.D. Cylinder carefully.

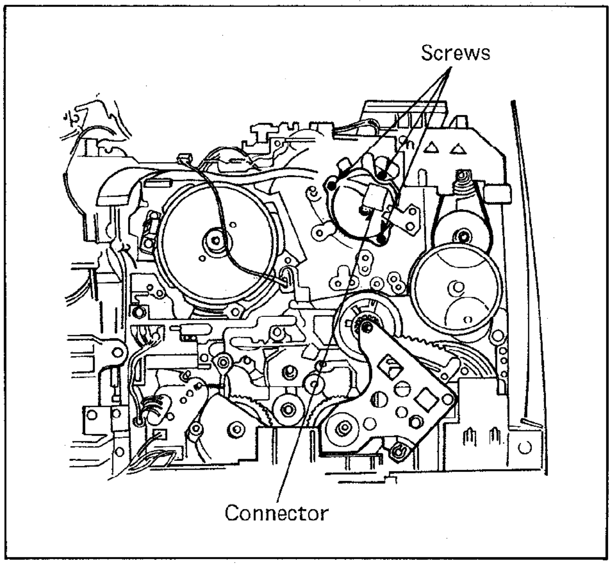


Fig. R3

Note:

Since there is very little clearance between the D.D. Cylinder Unit and the chassis, remove the D.D. Cylinder Unit carefully.

3. Reinstall the new D.D. Cylinder Unit, tighten the 3 screws and reconnect the connector.

Note:

(1) Gently rub the video head in direction of tape travel with Head cleaning stick.

(2) After replacement, confirm the performance.
If any further maintenance is required, perform "TAPE INTER-CHANGE ABILITY ADJUSTMENT.

2-3-3. REPLACEMENT OF CAPSTAN MOTOR UNIT

* Equipment required:
Reel Table Height Gauge (VFK0190)
* Specification...0.5+−0.05mm

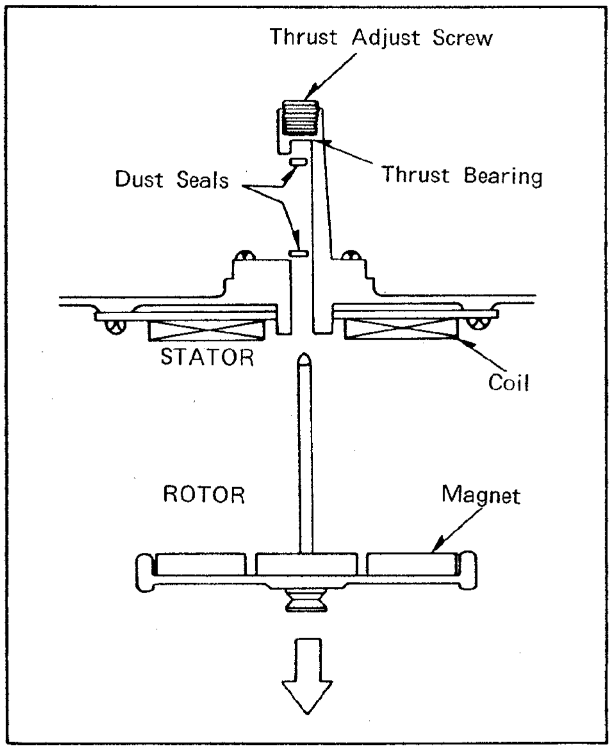


Fig. R4

(1) Remove the 2 screws and take belt cover off. After that remove the capstan belt.

(2) Tighten the Thrust Adjust Screw fully and pull the capstan rotor.

Note :

In this time pay attention not to lose two pieces of Dust Seal.

(3) Replace the new rotor with two pieces of Dust Seal.

Note :

(1) Pay attention to the replaced new rotor not to shock because of magnet absorbtion.
So hold the rotor firmly and replace it carefully.

(2) In this replacement, do not touch the Capstan shaft with any hard material like drivers or tweezers.

(4) After replacement, wipe off the Capstan shaft to remove oil, grease or dust.
(5) Unscrew Thrust Adjust Screw till the rotor is just touching to the stator.
(6) Turn this mechanism upside down and place the Reel Table Height Gauge so that the gauge fits to the chassis correctly, and read the height.
(7) Adjust the Thrust Adjust Screw so that the height difference just meets in the specification (0.5+−0.005mm) reading the height from the gauge.

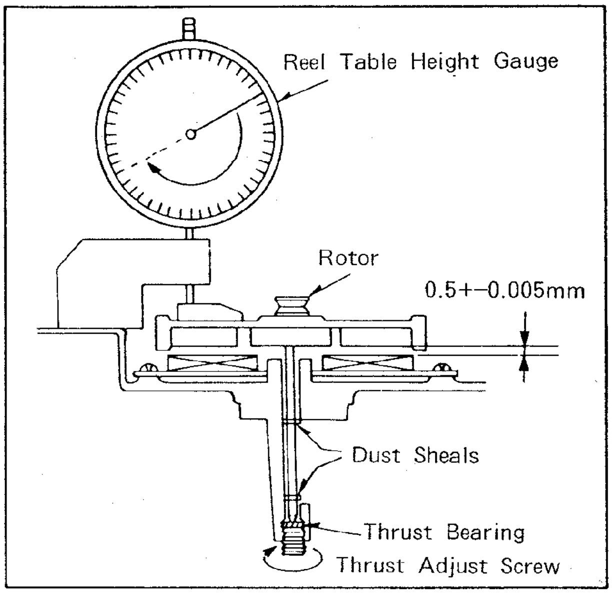

Reel Table Height Gauge
Rotor
0.5+−0.005mm
Dust Sheals
Thrust Bearing
Thrust Adjust Screw

Fig. R5

Note:

If the Thrust Adjust Screw is fully opened, you have to pay attention not to lose Thrust Bearing.
When it is fixed, confirm that the direction of Thrust Bearing is correct as shown below.

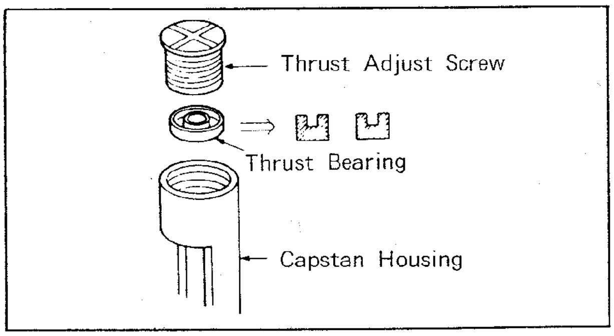

Thrust Adjust Screw
Thrust Bearing
Capstan Housing

Fig. R6

2-3-4. REPLACEMENT OF TENSION BAND

(1) Remove the cassette compartment.
(2) Remove a retaining ring and take out a Rew Arm (A) Unit.
(3) Remove a retaining ring and a snap washer and take out a tension Band Unit.

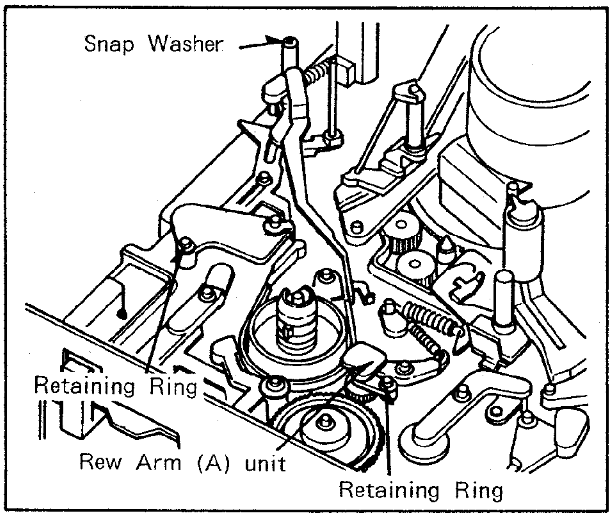

Snap Washer
Retaining Ring
Rew Arm (A) unit
Retaining Ring

Fig. R7

(4) Remove a Tension Band from Band Release Arm and Tension Arm Unit.

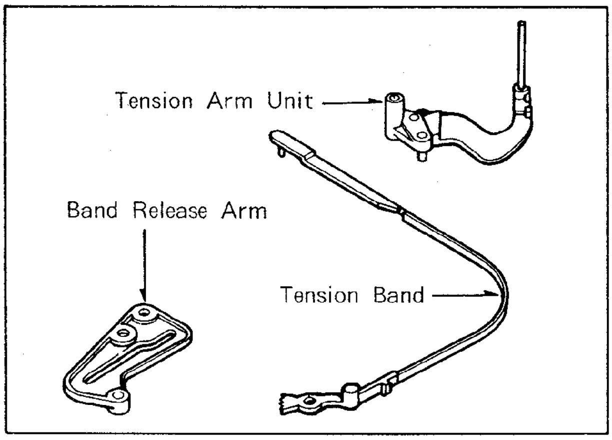
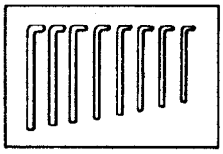
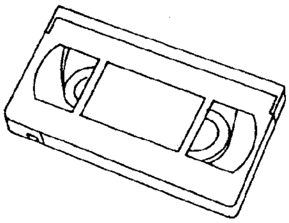
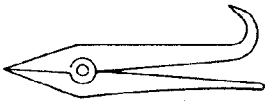
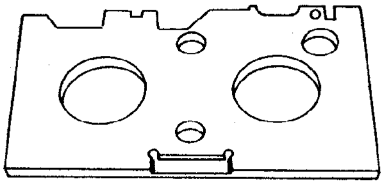
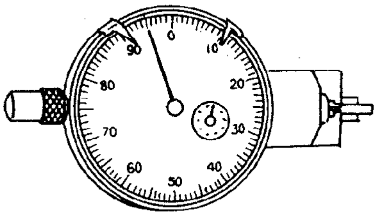
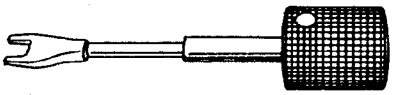
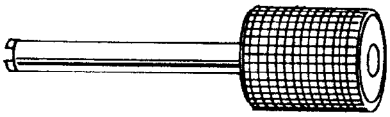
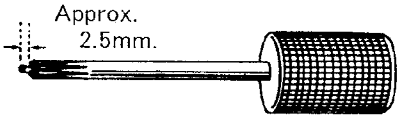
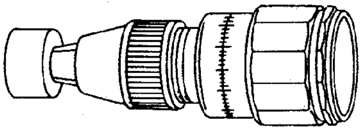
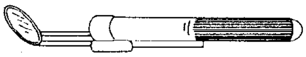
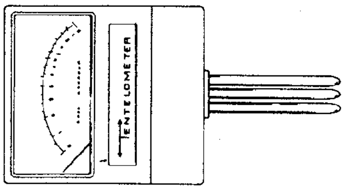
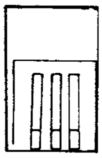
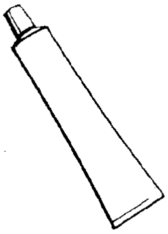

Tension Arm Unit
Band Release Arm
Tension Band

Fig. R8

(5) Replace a new Tension Band by Proceeding reverse steps shown above.

2-4. MECHANICAL ADJUSTMENT PROCEDURES

1. SERVICING FIXTURES & TOOLS

VFK0326 Hex Wrench Set (0.7, 0.9, 1.2, 1.5, 1.6, 2, 2.4, 3mm) 	VFJ8125H3F VHS Alignment Tape 	VFK0335 Retaining Ring Remover (3mm/4mm) 
VFK0191 Post Adjustment Plate 	VFK0190 Reel Table Height Gauge 	VFK0328 H-Position Adj. Fixture 
VFK0329 Post Adjustment Screwdriver 	VFK0157 Fine Adjustment Screwdriver  Grind the top portion approximately 2.5mm	VFK0133 Dial Torque Gauge VFK0134 Adaptor for VFK0133 VFK0180 (Plastic Clamper Only)) 
VFK0343 Check Light 	VFK0132 Back Tension Meter (TZ-H7-UM) (Tentelometer, Made in U.S.A.)  	VKF27 Head Cleaning Stick 
MOR265 Morlytone Grease 	High Quality Machine Oil <Purchase Locally> (Reel Shaft, Capstan Shaft etc.) Cleaning Liquid (Freon, TF, Alchol) <Purchase Locally> (Tape Transport Rubber Parts etc.)	

2. PROCEDURES FOR CLEANING OF UPPER CYLINDER UNIT

(1) Position the video head to clean and hold the upper cylinder to keep it from turning while cleaning.
(2) Gently rub the video head in direction of tape travel whith Head Cleaning Stick.
(3) Repeat for the other three video heads.

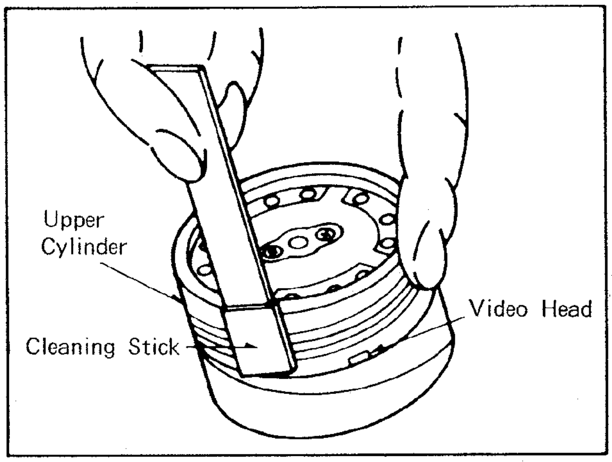


Fig. U1

Note:
(1) Do not rub vertically.
(2) Do not apply any pressure to heads.
If contamination is not easily removed,continued gentle wiping will usually remove the substance.

3. TAPE INTERCHANGEABILITY ADJUSTMENT PROCEDURES

3-1. ADJUSTMENT FLOW CHART

This flow chart describes the order of steps for adjusting the tape guide posts and A/C head in order to gain access to the items needing servicing.

AFTER REINSTALLING THE P1 POST, OR IF THE P1 POST HAS BEEN TURNED EXCESSIVELY.
↓
3-2-1. COARSE ADJUSTMENT OF THE TAPE GUIDE POST HEIGHTS.
↓
* **Note:**
Adjust the tape guide post P1 only.
↓
3-2-2. CONFIRMATION OF THE TAPE TRANSPORT.
↓
3-2-5. CONFIRMATION OF THE ENVELOPE OUTPUT (LINEARITY).

AFTER REINSTALLING THE UPPER CYLINDER OR CYLINDER UNIT.
↓
3-2-5. CONFIRMATION OF THE ENVELOPE OUTPUT.
↓
3-2-9. FINE ADJUSTMENT OF THE A/C HEAD HORIZONTAL POSITION (X-VALUE).

* **Note:**
Do not change the height of the P1 and P4 posts and position of the A/C head.

AFTER REINSTALLING ALL POSTS OR IF ALL POSTS HAVE BEEN TURNED EXTREMELY.
↓
3-2-1. COARSE ADJUSTMENT OF THE TAPE GUIDE POST HEIGHTS.
↓
3-2-2. CONFIRMATION OF THE TAPE TRANSPORT.
↓
3-2-3. ADJUSTMENT OF THE PULL-OUT POST (P5 POST) HEIGHT.
↓
3-2-4. CONFIRMATION OF THE A/C HEAD TILT.
↓
3-2-5. CONFIRMATION OF THE ENVELOPE OUTPUT.

AFTER REINSTALLING THE A/C HEAD.
↓
3-2-4. CONFIRMATION OF THE A/C HEAD TILT.
↓
* **Note:**
Do not change the height of P4 post.
↓
3-2-6. COARSE ADJUSTMENT OF THE A/C HEAD HEIGHT.
↓
3-2-7. ADJUSTMENT OF THE A/C HEAD HEIGHT AND AZIMUTH.
↓
3-2-8. COARSE ADJUSTMENT OF THE A/C HEAD HORIZONTAL POSITION (X-VALUE).
↓
3-2-9. FINE ADJUSTMENT OF THE A/C HEAD HORIZONTAL POSITION (X-VALUE).

AFTER REINSTALLING THE P4 POST, OR IF THE P4 POST HAS BEEN TURNED EXCESSIVELY.

3-2-1. COARSE ADJUSTMENT OF THE TAPE GUIDE POST HEIGHTS.

* **Note:**
Adjust the P4 post only.

3-2-2. CONFIRMATION OF THE TAPE TRANSPORT.

* **Note:**
Adjust the P4 post only.

3-2-4. CONFIRMATION OF THE A/C HEAD TILT.

3-2-5. CONFIRMATION OF THE ENVELOPE OUTPUT (LINEARITY).

AFTER REINSTALLING THE PULL-OUT POST (P5 POST).

3-2-3. ADJUSTMENT OF THE PULL-OUT POST (P5 POST).

* **Note:**
Do not readjust any other post.

3-2. ADJUSTMENT PROCEDURES

3-2-1. COARSE ADJUSTMENT OF THE TAPE GUIDE POST HEIGHT (P1, P2, P3 AND P4)

* Equipment Required:
Post Adjustment Plate..........VFK0191
Reel Table Height Gauge..........VFK0190
Nut Driver (Purchase locally)
Post Adjustment Screwdriver..........VFK0329

1. Remove the cassette compartment from the mechanical chassis.
2. Place the Post Adjustment Plate over the reel tables.
   (Fig. M1)
   Confirm that the Post Adjustment Plate is firmly seated.

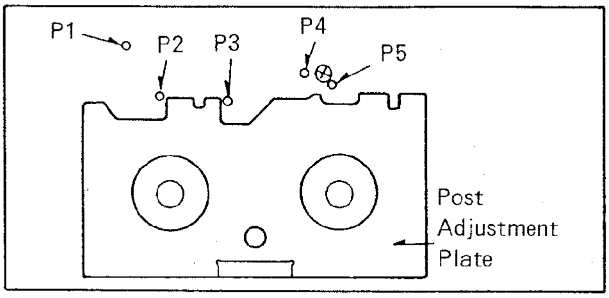


Fig. M1

3. Lower all 4 tape guide posts so that the lower tape guide on each post is below the top surface of the adjustment plate.
   Use the post Adjustment screwdriver to lower posts P2 and P3, and the Nut Driver to lower Posts P1, P4 and P5.
4. Place the Reel Table Height Gauge on the Post Adjustment Plate and lower the scraper so that it touches the plate (Fig. M2).

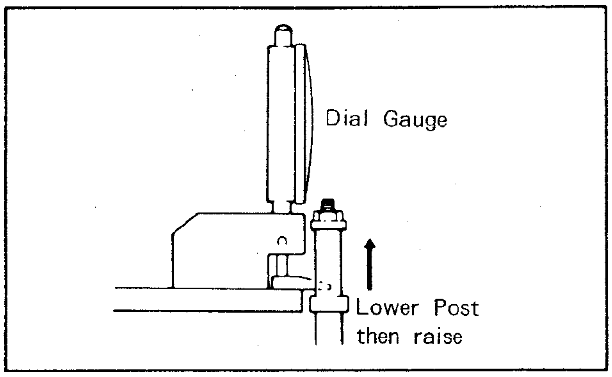


Fig. M2

5. Place the side of the scraper against the each post as shown in Figure M3, set the gauge to zero, then slowly raise the post until the lower tape guide just touches the bottom of the scraper. Use the gauge to determine the exact point at which the lower tape guide touches the scraper. (Fig. M3)

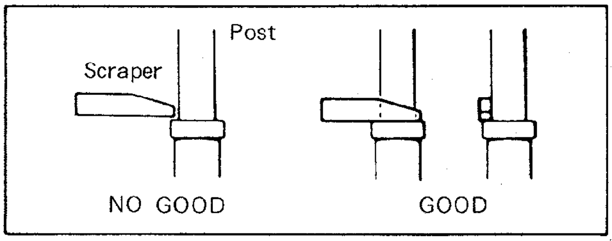


Fig. M3

3-2-2. CONFIRMATION OF THE TAPE TRANSPORT (TAPE GUIDE POSTS)

* Note:
1. The tape guide posts have been precisely adjusted at the factory. Therefore, normally do not change the height of P1, P4 and P5 posts. The following adjustment is required only when replacing the posts.
2. If curling is apparent proceed to the P4 post, wipe dirt from the pressure roller and capstan shaft using a soft cloth impregnated with Freon TF or cleaning liquid.
3. The adjustment of the post height is required only the one which has been replaced.

* Equipment Required
Post Adjustment Screwdriver.....VFK0329
Check Light.....................VFK0343
Nut Driver (Purchase locally)

1. To prevent the alignment tape from being damaged, use a normal cassette tape for this procedure.
   Playback the normal cassette tape and confirm that the tape travels without any curling at the edges of all the posts by using the check light. (Fig. M4 and Fig. M5)

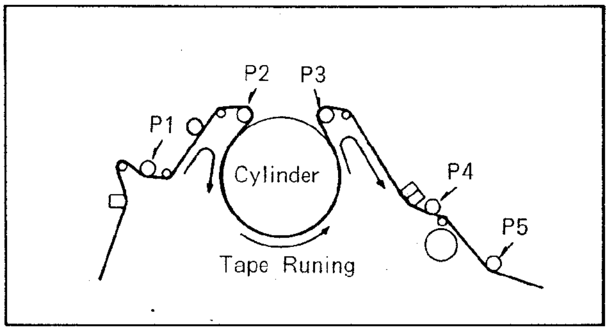


Fig. M4 Tape Transport Posts

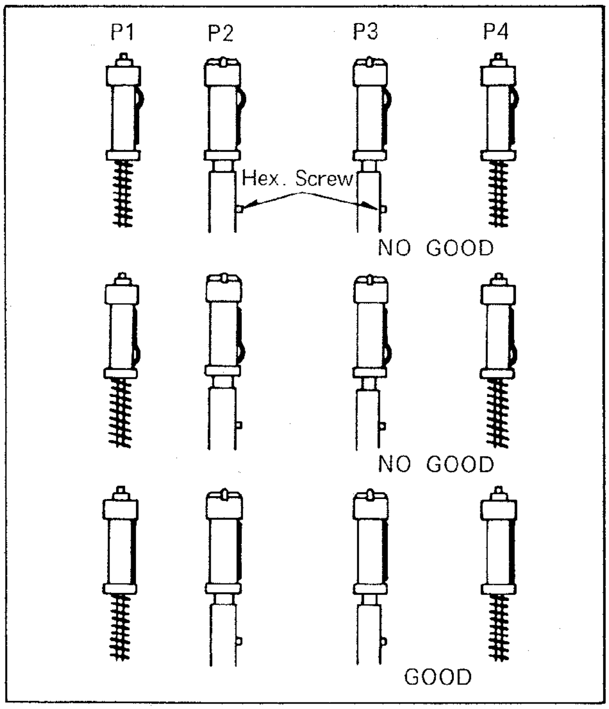


Fig. M5 Tape Guide Posts

2. If curling is apparent, adjust the height of posts by turning the top of post with the post adjustment screwdriver (posts P2 and P3) or the nut-driver (Posts P1 and P4). (Fig. M4 and M5)
3. After adjusting the P4 post, adjustment of the pull-out post (P5) is required.
   (Refer to "ADJUSTMENT OF THE PULL-OUT POST HEIGHT".)
4. If the tape curling cannot be corrected by adjusting the tape guide posts, then adjustment of the A/C head tilt may be needed.

3-2-3. ADJUSTMENT OF THE PULL-OUT POST (P5 POST) HEIGHT

* Notes:

1. This adjustment should be performed only after adjusting tape guide post P4 as the height of the pull-out post is based on the height of post P4.

* Tools and Equipment Required:
Post Adjustment Plate..........VFK0191
Reel Table Height Gauge........VFK0190
Check Light....................VFK0343
Nut Driver (Purchase locally)

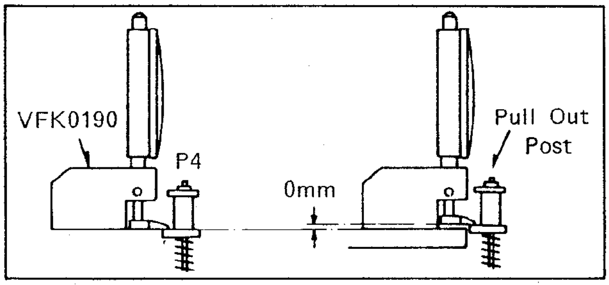


Fig. M6

1. Remove the cassette compartment by unscrewing 4 screws.
2. Place the Post Adjustment plate over the reel tables.
3. Place the Reel Table Height Gauge on the tape guide post P4, lower the scraper so that it touches the lower edges of P4, then set the gauge to zero ("0"). (Fig. M6)
4. Slightly lower the pull-out post by turning the nut on the post clockwise with the nut driver, and set the side of the scraper against the post as shown in Fig. M7.
5. Slowly turn the nut on the post counterclockwise until the gauge reads 0mm. (Fig. M6)
6. Confirm there is no tape curling at P4 post during reverse mode by using the check light.
   If tape curling occurs, Go back to step 3.

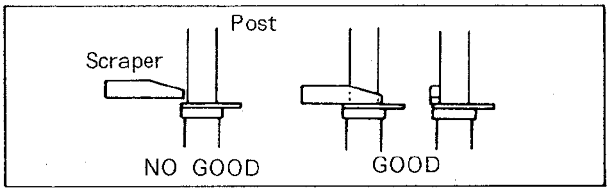


Fig. M7 Post Adjustment

3-2-4. CONFIRMATION OF THE A/C HEAD TILT

* Note:
This procedure should be performed after replacing the A/C head and pressure roller, and adjusting the height of the tape guide post (P4).
(Refer to "COARSE ADJUSTMENT OF THE TAPE GUIDE POST HEIGHTS".)

* Tools and Eqipment Required:
Hex. Wrench Set..........VFK0326
Nut Driver (purchase locally)

1. Play back the begnning portion of NV−E240 blank cassette tape and confirm that the tape runs between lower and upper limiters of the P4 post. If there is waving or frilling in the lower edge or top edge of the tape, correct the tilt of the A/C head by turning the screw located behind the A/C head. (Fig. M8)

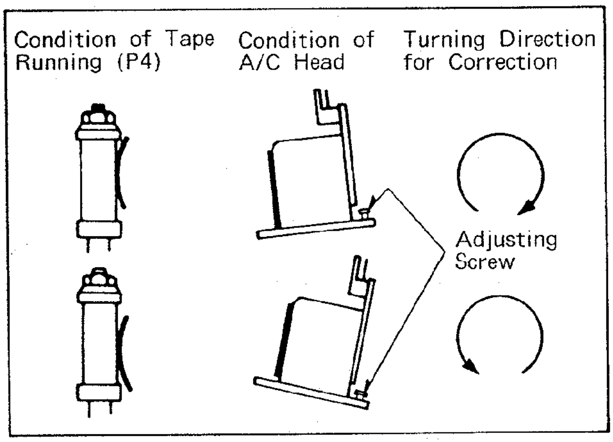

Condition of Tape Running (P4)
Condition of A/C Head
Turning Direction for Correction
Adjusting Screw

Fig. M8

2. If the tape curling cannot be removed by adjusting the A/C head tilt, then readjustment of the height of the tape guide post (P4) may be needed.

* Notes:

1. The tape guide post (P4) has been precisely adjusted at the factory. Therefore, normally the tape guide post (P4) readjustment is not required to eliminate the tape curling.
2. After adjusting the A/C head tilt, the A/C head height adjustment is required.

3-2-5. CONFIRMATION OF THE ENVELOPE OUTPUT (LINEARITY)

* Note:

Before playing back the alignment tape, play back a normal cassette tape and confirm correct transport.
(Refer to "CONFIRMATION OF THE TAPE TRANSPORT".)

* Tools and Equipment Required:
Post Adjustment Screwdriver.....VFK0329
Alignment Tape.....VFJ8125H3F

1. Connect the scope to the output of the Head Amp (CL3003) on the Main C.B.A. and TP6201 on the same C.B.A. to EX +− Trigger of the scope.
2. Play back the monoscope portion of the alignment tape VFJ8125H3F.
3. Turn the Tracking Control VR and adjust for maximum RF envelope.
4. If the RF envelope appears like example "A" or "B" in Fig.M9, then adjustment of tape guide post (P2 : Entrance) is necessary.
5. Adjust the tape guide post (P2) with the post adjustment screwdriver so that the RF envelope waveform at the entrance portion becomes flat as shown "C" in Fig.M9. (See Fig.M12 also)

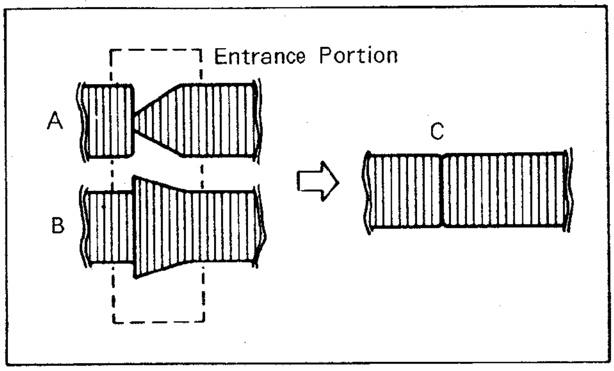


Fig. M9

6. If the RF envelope appears like example "D" or "E" in Fig. M10, then adjustment of the tape guide post (P3 : Exit) is necessary.
7. Adjust the tape guide post (P3) in the same manner as the P2 post so that the exit portion becomes flat as shown in "F" in Fig. M10.

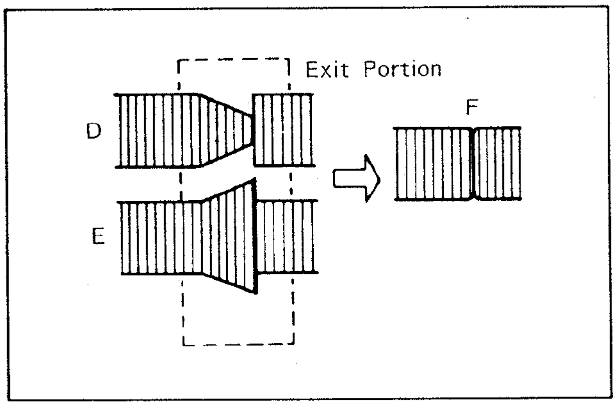


Fig. M10

8. Turn the Tracking VR from end to end. The variation of RF envelope should be nearly parallel as shown in Figure M11.
9. Turn the Tracking VR and adjust for maximum RF envelope. If the RF envelope does not meet these specs, V1/V 0.7, V2/V 0.8, then repeat steps 1−9 of item 3−2−5. again. (Fig. M13)

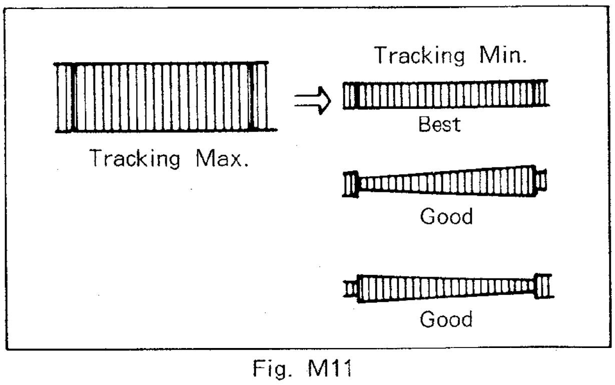


Fig. M11

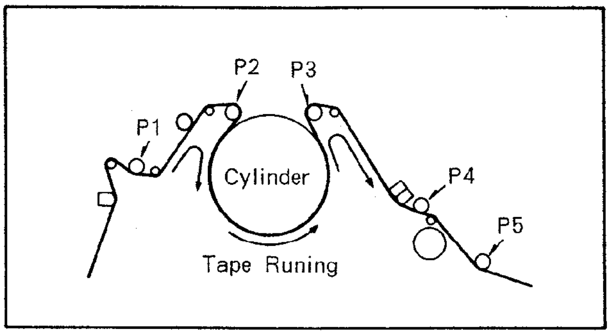


Fig. M12 Loading of post

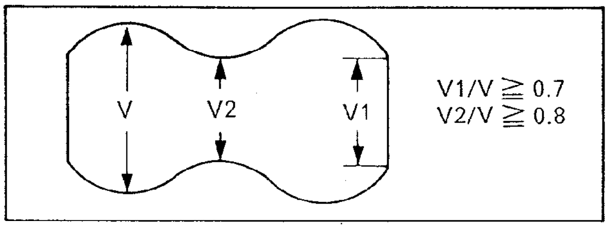


Fig. M13 Spec. of Envelope Figure

10. Turn the Tracking VR from end to end again and then back to the detent (Fix) position. At the detent position, the RF envelope waveform should be at maximum. If it is not at maximum then "ADJUSTMENT OF THE A/C HEAD HORIZONTAL POSITION" is necessary. (Refer to "FINE ADJUSTMENT OF THE A/C HEAD HORIZONTAL POSITION".)

3-2-6. COARSE ADJUSTMENT OF THE A/C/ HEAD HEIGHT

* Note:

This procedure should be performed only when the A/C Head is replaced.

* Tools and Equipment Required:
Check Light..........VFK0343
Nut Driver (Purchase locally)

(1) Looking at the lower edge of the control head within the tape running, ensure that lower edge of the tape runs along 0.25mm far from lower edge of the control head. (litte bit up position from lower edge of control head.) If it doesn't, slightly turn the nut (A) in either direction to correct clockwise to lower the head and counterclockwise to raise it.

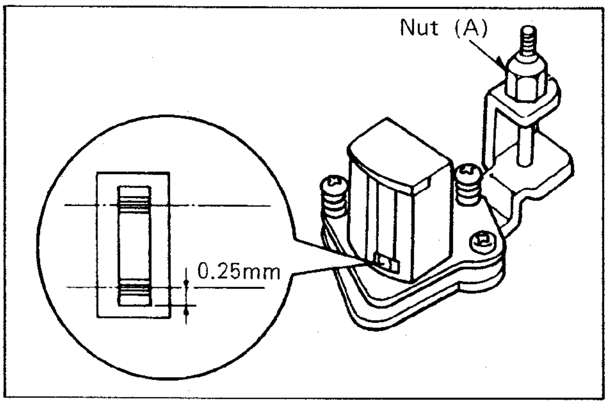


Fig. M14

3-2-7. ADJUSTMENT OF THE A/C HEAD AND AZIMUTH

* Note:
This procedure should be performed only when the A/C Head is replaced and posts hight are readjusted.

* Tools and Equipment Required:
Nut Driver (Purchase locally)
Alignment Tape.....VFJ8125H3F

1. Connect the scope to the audio output.
2. Play back the 2nd portion (Normal Audio 6KHz) of the alignment tape, VFJ8125H3F.
3. Adjust the screw (B) so that the audio output level becomes maximum. (Fig.M15)

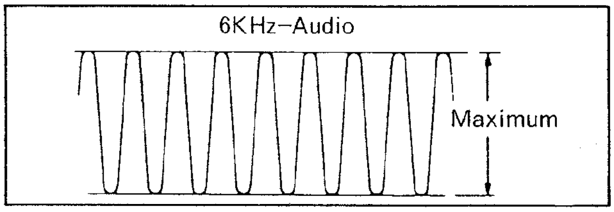


Fig. M15

4. Then adjust the nut (A) so that the audio output level (at TP4001) maximum.

3-2-8. ADJUSTMENT OF A/C HEAD HORIZONTAL POSITION

Note:
This procedure should be performed only when the A/C head is replaced and after performing the tape interchangeability adjustment.

* Tools and Equipment Required:
H. Position Adj. Fixture..........VFK0328
Alignment Tape.................VFJ8125H3F

1. Set the Tracking Control VR to the center detent (fixed) position.
2. Connect the scope CH1 to TP3001 on the Main C.B.A., and TP4001 on the Audio C.B.A. to Ext–trigger the scope.
3. Play back the Monoscope pattern of the alignment tape (VFM8125H3F).
4. Adjust the adjust screw so that the RF envelope output level becomes is maximum at the detent position (Fig.M16,M17).
5. Turn the Tracking VR from end to end and then back to the detent position. Confirm that the RF envelope output level is maximized at the detent position. (Fig.M11)

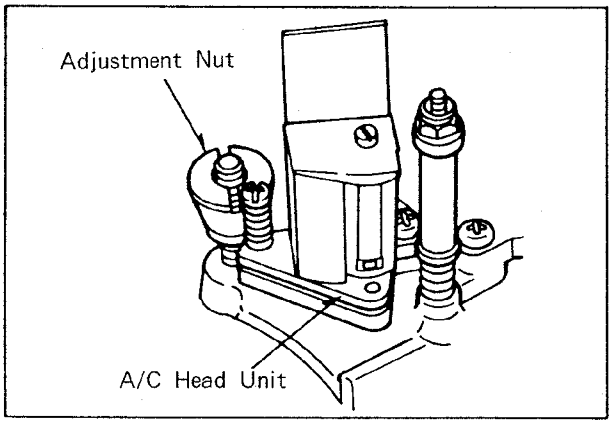


Fig. M16

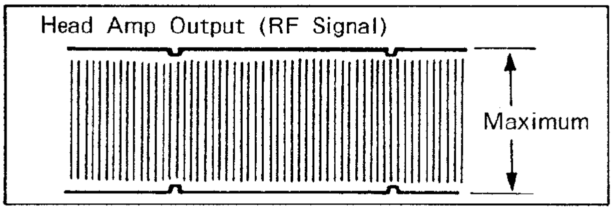

Head Amp Output (RF Signal)
Maximum

Fig. M17

4. OTHER ADJUSTMENT PROCEDURES

4-1. CONFIRMATION OF BRAKE TORQUE

* Equipment Required:
Dial Torque Gauge..........VFK0133
Adaptor for Gauge..........VFK0134
* Specification:———see spec table (Fig. M19).

(1) Remove the cassette compartment by unscrewing 4 screws.
(2) Attach the adaptor to the torque gauge and place the unit in STOP mode.
(3) Place the torque on the reel table. The weight of gauge should not rest on the reel table.

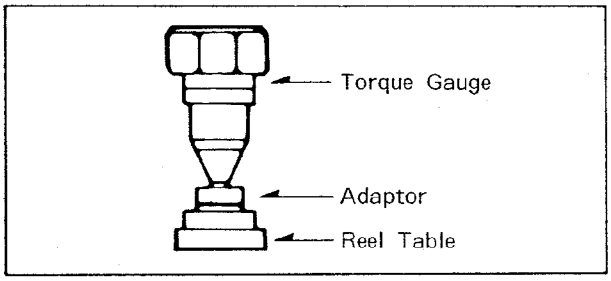
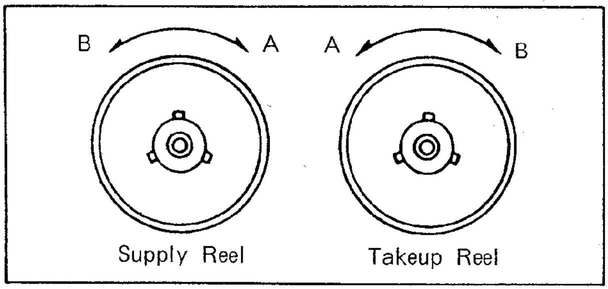

Torque Gauge
Adaptor
Reel Table

Fig. M18

(4) Turn torque gauge in either direction indicated in the Fig. M19, and read the gauge when the brake begins slipping.

Note:

If proper brake torque can not be optained, check the both take–up and supply clutch gear.


B
A
A
B
Supply Reel
Takeup Reel

	A	B
Takeup	28+–8g–cm	28+–8g–cm
Supply	28+–8g–cm	28+–8g–cm

Fig. M19

4-2. TENSION POST POSITION ADJUSTMENT

* Specification : ——————2.4mm∼2.9mm

(1) Remove the Cassette Up unit by unscrewing 4 screws. (Refer to the disassembly procedures titled in Removal of the Cassette Up Unit). Place the unit in Play mode by rotating Drive Gear (A) in clockwise shown below.

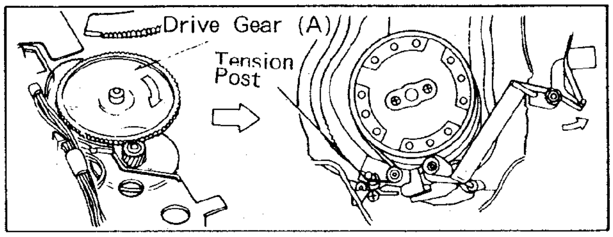

Drive Gear (A)
Tension Post

Fig. M20

Note:

In this case, make sure that the power is not applied.

(2) Loosen the screw (A) a little bit and adjust the Tension Post adjustment plate so that the "Distance (A)" shown below becomes just meet in the specification (2.4m∼2.9mm).
(3) Tighten the screw (A) to fix it.

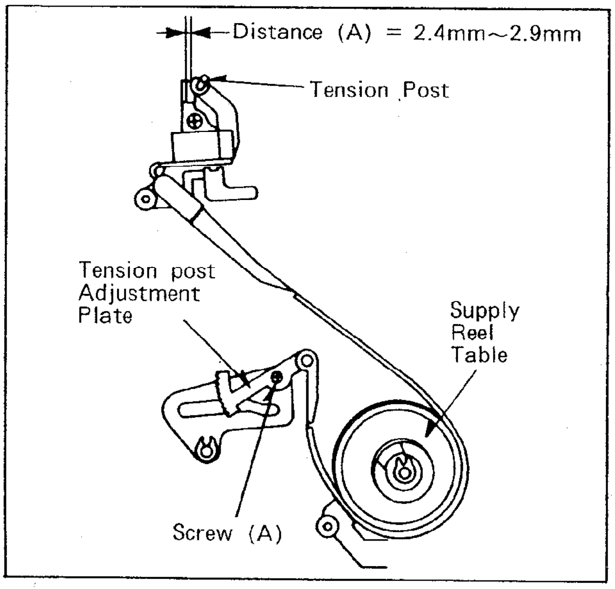

Distance (A) = 2.4mm∼2.9mm
Tension Post
Tension post Adjustment Plate
Supply Reel Table
Screw (A)

Fig. M21

4-3. BACK TENSION ADJUSTMENT

* Equipment Required:
Back Tension Meter.....VFK0132
VHS Cassette Tape (120min)
* Specification:——————19–23g

1. Playback the cassette tape from the beginning and wait until the tape movement get the stabilized. (for approx. 10–20 seconds) is stabilized.

2. Insert the Back Tension Meter into the path of a tape, and measure if the back tension is within specification as shown in Fig.M22.

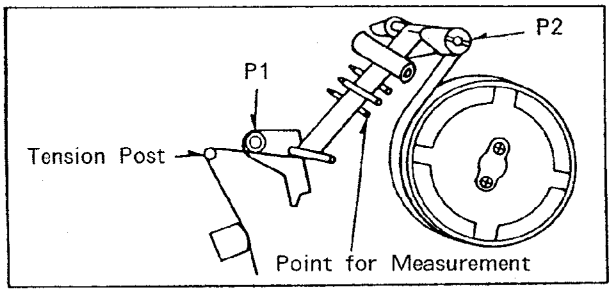


Fig. M22 Measurement of Back Tension

Note:

1. While measuring, make sure that the three probes of the meter are all in good contact with the tape.
2. As the tension meter is very sensitive, we recommend taking 3 separate readings.
3. If it is out of specification, change the spring notch as shown in Fig. M23.

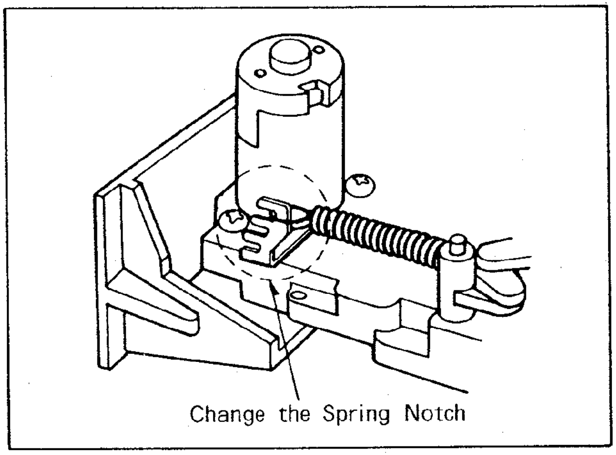


Fig. M23

4-4. REEL TABLES HEIGHT ADJUSTMENT

* Equipment Required:
Post Adjustment Plate..........VFK0191
Reel Table Height Gauge........VFK0190
* Specification———————0~−0.15mm

Note:

Cut−out on Post Adjustment Plate is reference of reel table height and their height is measured based on this reference.

1. Place the post adjustment plate on the reels, and put the Gauge on the plate. Set the gauge to zero "0" with the foot scraper of the gauge touching the cut−out portion of the plate.

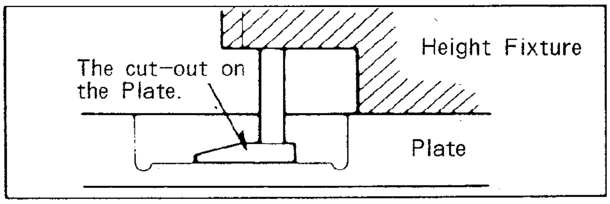


Fig. M24

2. Then measure the height of reel table and confirm the difference performed in step 1 as shown below. Do the same for the other reel table.

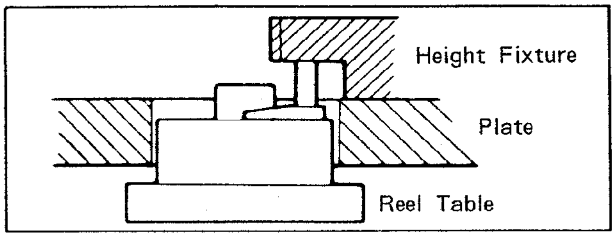


Fig. M25

3. If a height difference in readings between the cut−out portion of plate and reel tables is not 0~−0.15mm (higher or lower), adjust the height of the reel to obtain specified height.
4. For adjustment add or reduce a washer.

4-5. ADJUSTMENT OF FG HEAD GAP

* Specification:——————0.17~0.18mm

(1). Slightly loosen the 2 screws.
(2). Put the paper which is used for cover page of this volume into the gap between F.G.Head and Capstan rotor. (The thickness of the cover page is approx 0.17mm)
(3). After adjustment, tighten 2 screws.

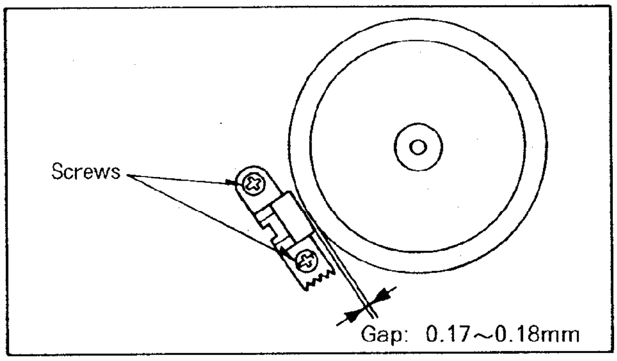


Fig. M26

Note:

Do not touch the surface of rotor and keep any magnetizable material away.

4-6. ASSEMBLY ADJUSTMENT PROCEDURES OF MECHANISM

The mechanism of this model is mostly engaged to the System Control Circuit, through the mode select switch.
Therefore the relation between the mode select switch and the cam gear decides all further mechanical movement of the mechanical parts such as levers, gears, rollers and so on.
If these parts are fixed in properly, the unit will be unloaded or compulsorily stopped.
And it will result being damage to any mechanical or electrical parts.

[1] PROCEDURES FOR ASSEMBLING LOADING RING AND LOADING GEARS

(1) Install a Loading Ring T (1) unit and a Loading Gear (B) so that both triangle marks line on as shown below.

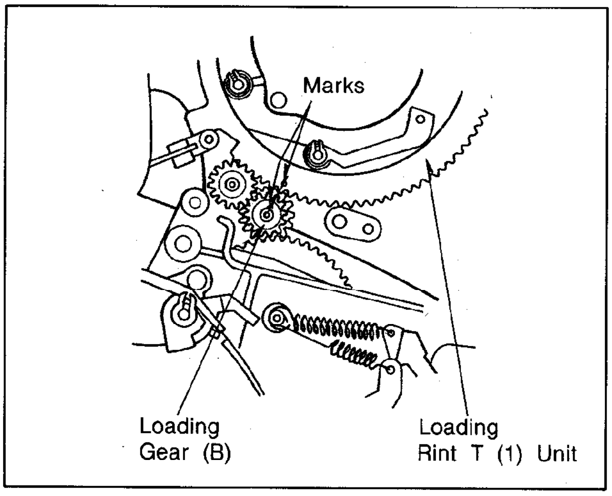

Marks
Loading Gear (B)
Loading Rint T (1) Unit

Fig. M27

(2) Install a Loading Gear (A) and next fix a Loading Ring S (1) Unit so that the holes of Loading Ring S (1) Unit and T (1) Unit line on as shown below.

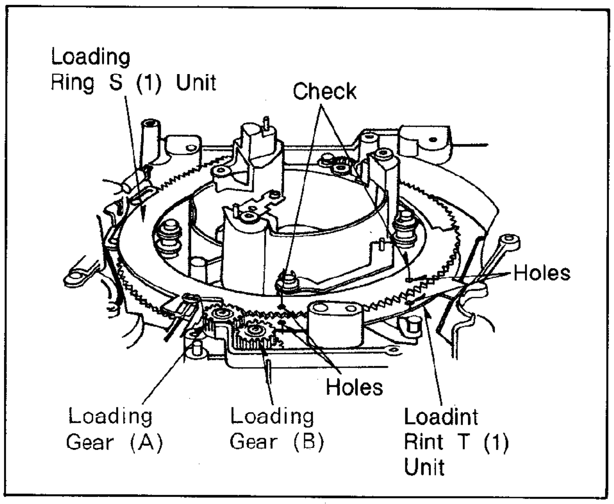

Loading Ring S (1) Unit
Check
Holes
Holes
Loading Gear (A)
Loading Gear (B)
Loadint Rint T (1) Unit

Fig. M28

Note:
Pay attention that the washers are remaining under the loading gears or any other parts.

[2] PROCEDURES FOR ASSEMBLING TAKE-UP LOADING GUIDE AND TAKE-UP LOADING POST UNIT

(1) Install Loading Guide T unit.
The small projection of a Loading Link T unit must be inserted into gap of Loading Guide T unit.

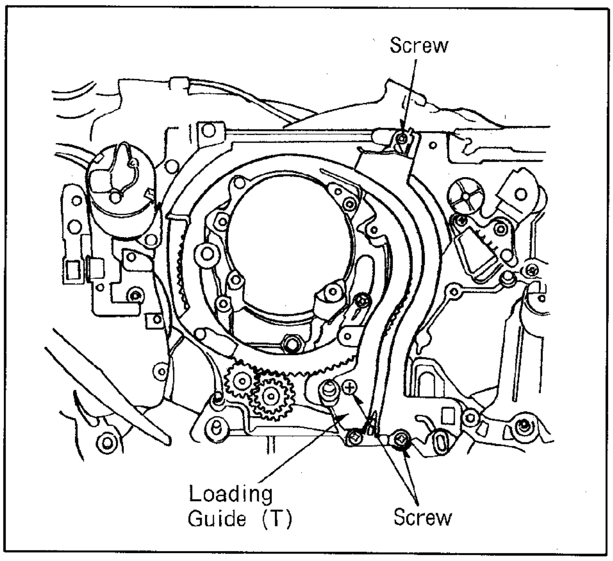

Screw
Loading Guide (T)
Screw

Fig. M29

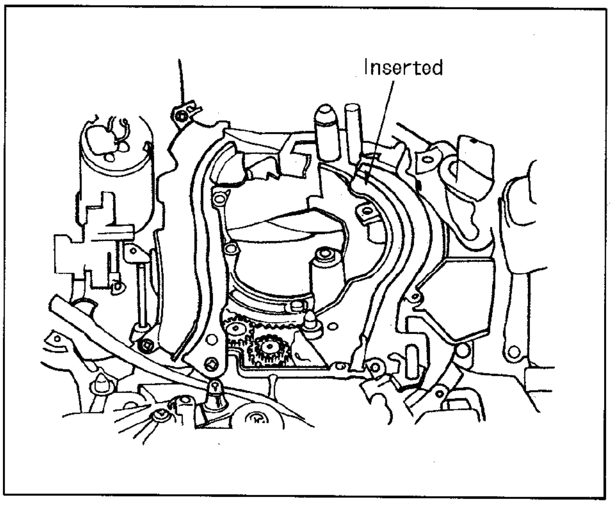


Fig. M30

(2) Fix a Take-up Side Loading Post unit holding the Small projection of the Loading Link T unit and install at shaft Holder Unit.

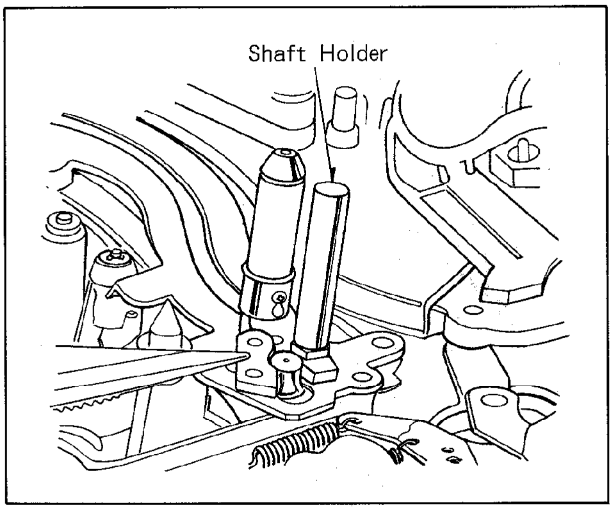

Shaft Holder

Fig. M31

[3] PROCEDURES FOR ASSEMBLING SUPPLY LOADING GUIDES AND SUPPLY LOADING POST UNIT

(1) Install the Loading Guide S-1 and S-2. Then tighten 3 screws.

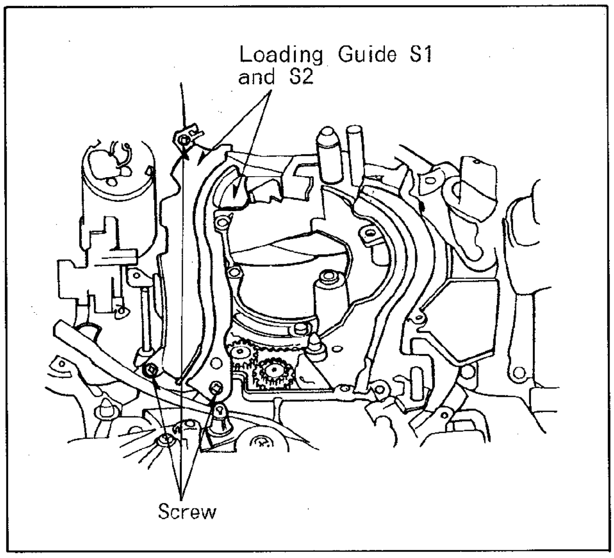

Loading Guide S1 and S2
Screw

Fig. M32

(2) Slide a Supply Loading Post Unit into a gap between the Loading Guide S1 and S2 hooking a connection Rod to a connect Tie Unit as shown below.

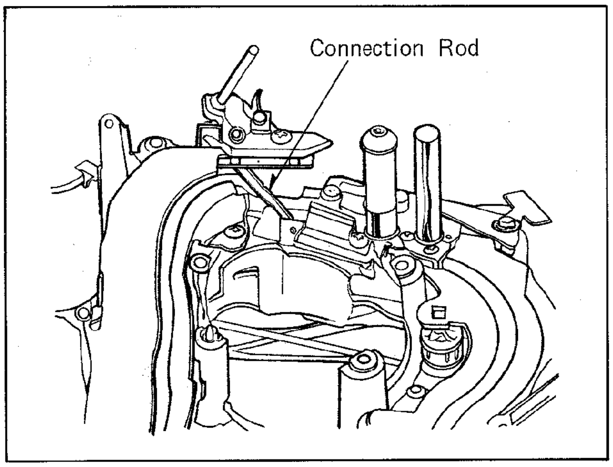

Connection Rod

Fig. M33

(3) Install a V stopper Base and Supply Post Stopper.

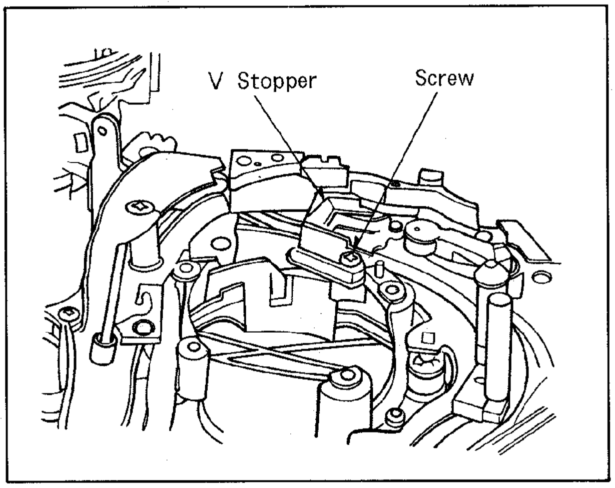

V Stopper
Screw

Fig. M34

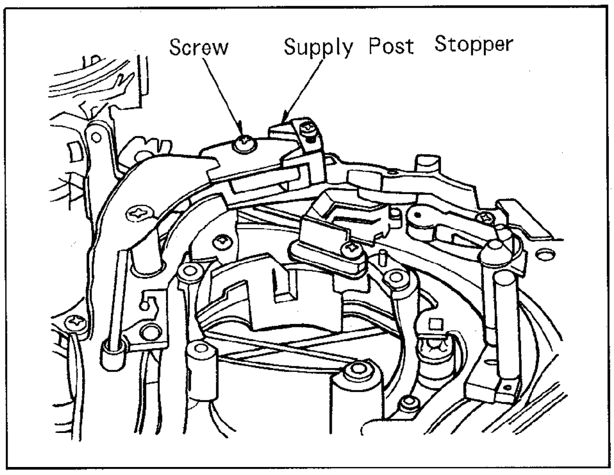

Screw
Supply Post Stopper

Fig. M35

(4) Set the Loading Post unit into Stop position. as Shown below.

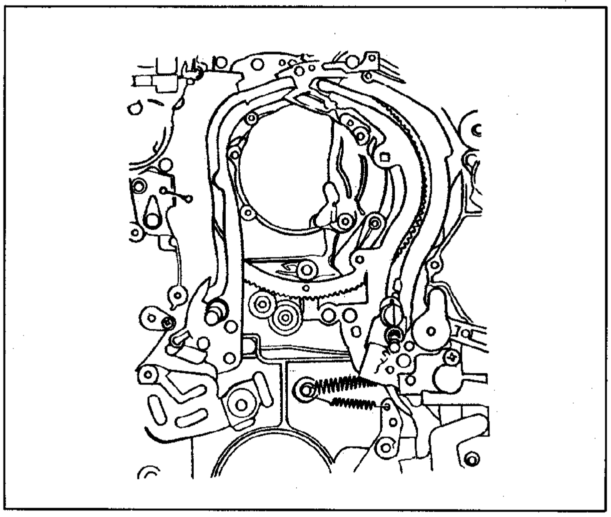


Fig. M36

[4] PROCEDURES FOR ASSEMBLING MAIN ROD

(1) Place a Main Rod inserting 3 Thrust Washers and then insert 3 washers.
After that, fix them using 2 retaining rings as shown below.

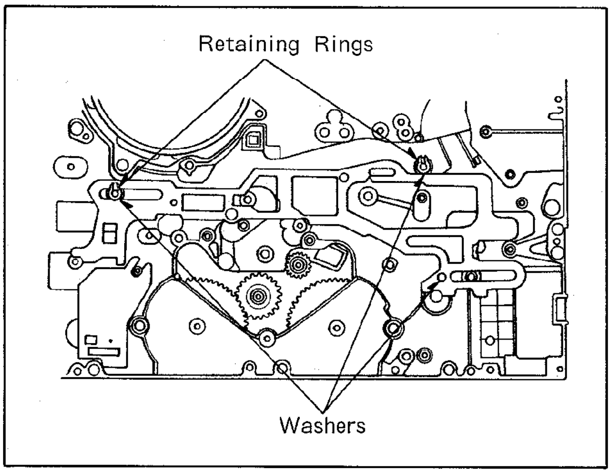

Retaining Rings
Washers

Fig. M37

(2) Install a Drive Arm kick Lever hooking a Drive Arm Kick Lever Spring and fix it using ring.

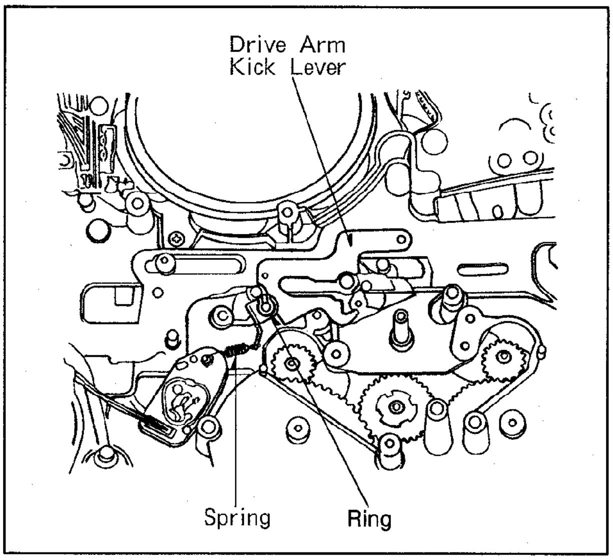

Drive Arm
Kick Lever
Spring
Ring

Fig. M38

[5] PROCEDURES FOR ASSEMBLING CAM GEAR AND LOADING GEAR (C)

(1) Make sure that the hole on a Main Rod Line up exactly with hole on chassis as shown below.
Make sure also, the holen a Cam Gear Line up with hole on chassis.

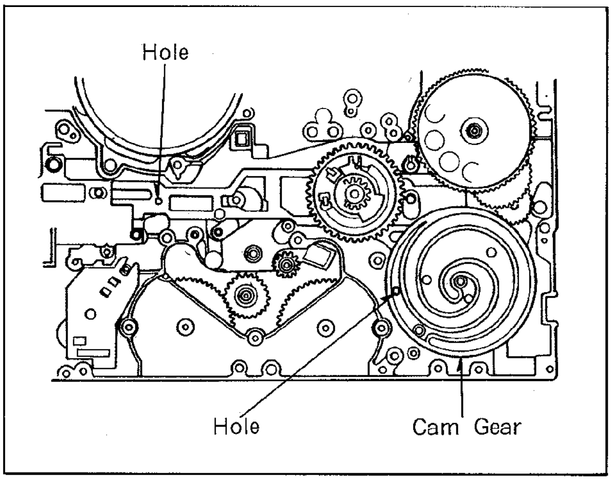

Hole
Hole
Cam Gear

Fig. M39

(2) Install a Loading Gear (C) keeping the relation as shown below.

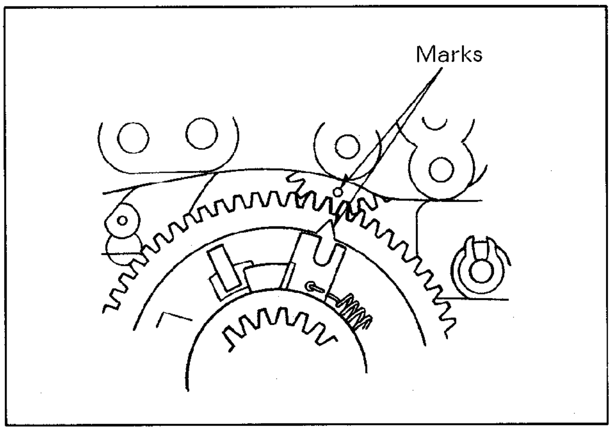


Fig. M40

(3) Install a Sector Gear as shown below.

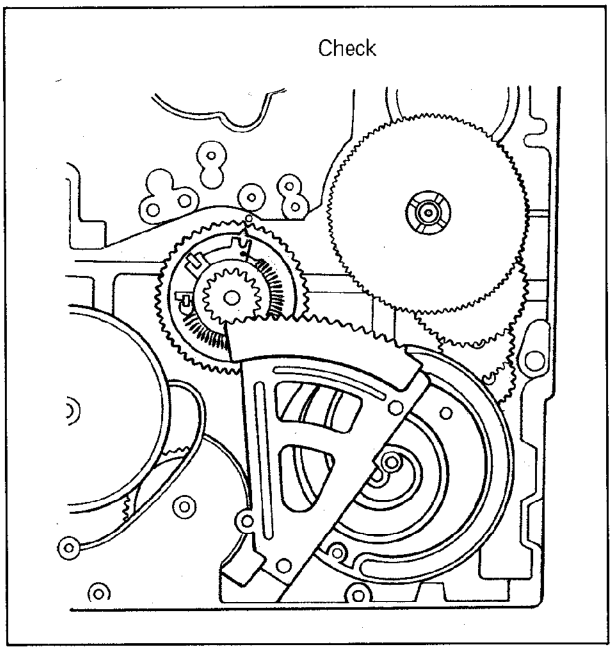


Fig. M41

(4) Fix a SG Limiter

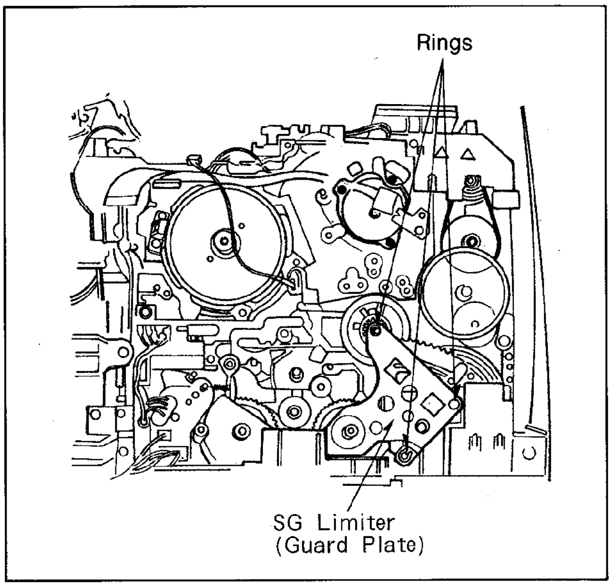


Fig. M42

[6] ASSEMBLY PROCEDURES OF MODE SELECT SWITCH

(1) Perform this procedures after confirming the complete setting of mechanical parts. First of all, confirm that the hole on a Main Rod is meeting with a hole on a chassis.

(2) Move the moving contact of a Mode Select position as shown below.

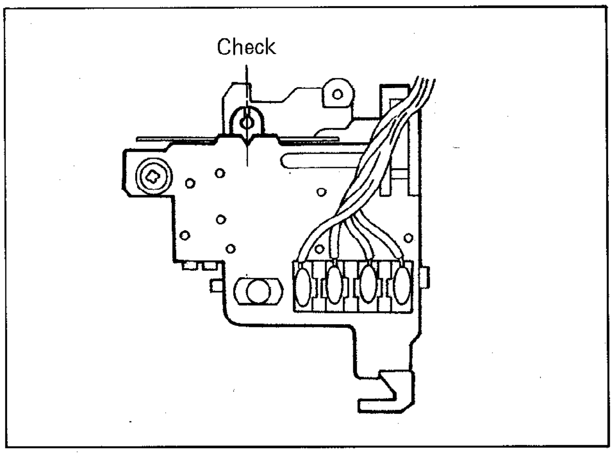


Fig M43

(3) Install the Mode Select Switch keeping these relation writen in item (1) and (2) by screwing 2 screw.

2-5. ELECTRICAL ADJUSTMENT PROCEDURES

2-5-1. ELECTRICAL ADJUSTMENT FOR CAMERA SECTION

TEST EQUIPMENT AND TOOLS

The following equipment is required for adjustment of the CAMERA section.

1) TEST EQUIPMENT

1. Oscilloscope
   Dual Trace, 50MHz, 2mV/DIV
   10:1 Probe
   1:1 Probe
2. Digital Volt Meter of VTVM
3. Frequency Counter
4. Vectorscope
5. Light Meter
6. Tripod
7. Colour Video Monitor
8. Lighting
   140 foot-candles (1400lux) on the chart surface 3200 degrees K.

2) TOOLS

* Logarithmic Gray Scale Chart
  (Part No.:YWV2310RB99)
* Colour Chip Chart
  (Part No.:YWV2100RB98)
* Hunting Chart
  (Part No.:VFK0546)
* J Chart & Ball Chart
  (Part No.:VFK0580)
* Colour Bar Chart
  (Part No.:VFK0677)

10. Plastic Tip Driver
11. E.V.R. FIXTURE (Part No.:VFK0644)
    * ROM 7 (Part No.:VFK0701ROM7)

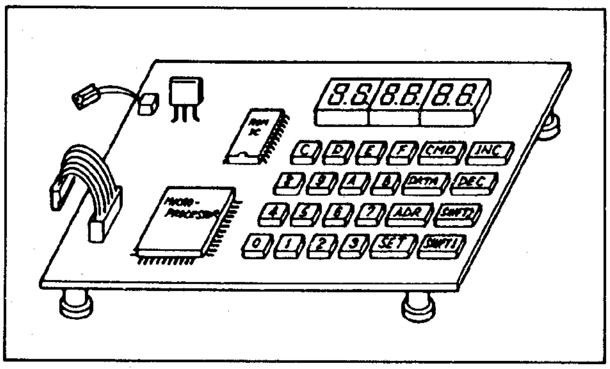

8.8.8.8.8.8.
ROM IC
MICRO-PROCESSOR
C
D
E
F
CMD
INC
8
9
A
B
DATA
DEC
4
5
6
7
ADR
SHIFT2
0
1
2
3
SET
SHIFT1

Fig. C1

12. Colour Temperature Conversion Filter
    * C12 Filter (Part No. VFK0374 or VFK0713)
    * C2 Filter (Part No. VFK0375 or VFK0716)
    * Movie Light Box VRD91MLB
      (including VFK0777 Gray Scale Chart)
13. Extension Cable
    * CONNECTION Cable for Measurement (24P)
      (Part No.VFK0766A)
    * EVR CONNECTION Cable (15P)
      (Part No.VFK0734W)
14. Camera Extension Cables

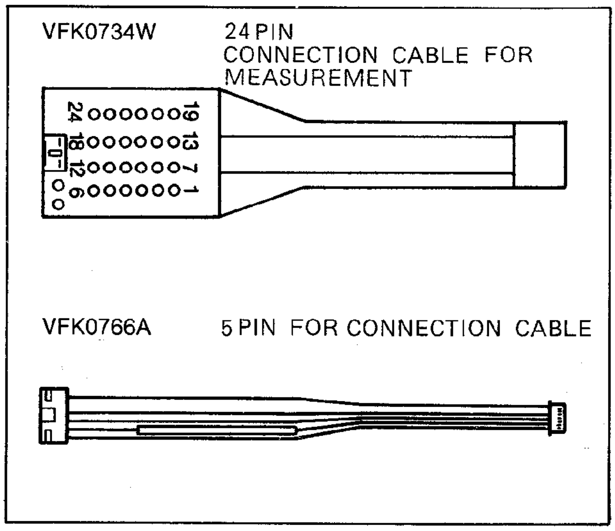

VFK0734W
24 PIN
CONNECTION CABLE FOR MEASUREMENT
24
19
18
13
12
7
6
1
VFK0766A
5 PIN FOR CONNECTION CABLE

Fig. C2

(Standard Setting for Camera Adjustment)

The camera switches must be set in the following position for camera adjustment unless other wise specified each adjustment procedure.

1) White Balance Switch...White set
   (Refer to How to White Set)
   AF...Auto
   High speed shutter...OFF
   Fade...OFF
2) Iris...Center(ALC condition)
3) Use 3200 degrees kelvin light source for lighting.
4) To trigger the oscilloscope, use Video output.
5) Service work for camera unit must be performed in a dust free location to maintain the lens cleanliness.

(How to set White Balance)

1) Aim the camera at white chart.
2) Push [SHIFT 1 + 8] simultaneously.

(Description of Command)

Selecting the communication for the type of data exchange performed between EVR Fixture and camcorder.

Command	Communication	Contents
02	EVR Fixture → EEPROM	Writing the data to address of EEPROM..(Lower Digit)
12	EVR Fixture → EEPROM	Writing the data to address of EEPROM. (Upper Digit)
04	EEPROM → EVR Fixture	Reading out the data of EEPROM. (Lower Digit)
14	EEPROM → EVR Fixture	Reading out the data of EEPROM. (Upper Digit)
08	EVR Fixture → Micro Computer (RAM)	Data transmission of EVR Fixture to Micro computer (RAM).
18	EVR Fixture → Micro computer (RAM)	Data tranmission of EVR Fixture to Micro computer (RAM).
09	Micro computer (RAM) → EVR Fixture	Reading out the data of Micro computer (RAM).
19	Micro computer (RAM) → EVR Fixture	Reading out the data of Micro computer (RAM).

Fig. C3

(Error Indication)

If an error is occurs while EVR is operating, EVR will display one of the error massages listed in Fig.C4 for 2 seconds and then return to the previous indication.

Error NO.	Contents of Error	Simple checking method
1	Set the command number	
2	Set the wrong Address number	
3	VD signal from camera is not coming.	TP lead wire may be cut
4~6	Detect the error during communication	TP lead wire may be cut
7	Writing error in the EEPROM of camera.	Command or address cure wrong
8	Communication error in the EEPROM of camera	Same as above

Fig. C4

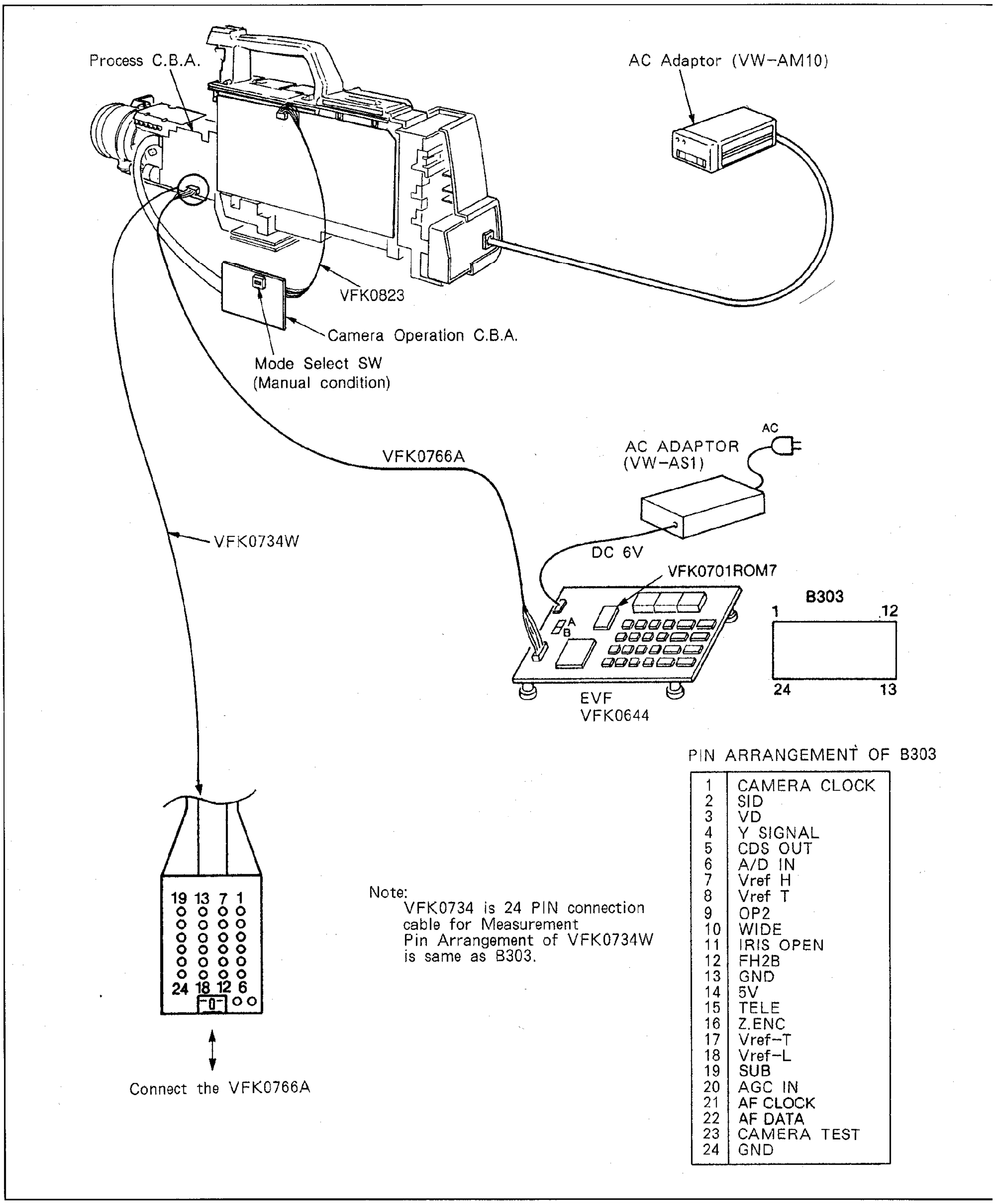
(Macro Operation)
The following operation is provided to transfer the data by one touch.

<table>
<tr><th>NO.</th><th>Buttom to be pushed</th><th>Operation</th></tr>
<tr><td>1</td><td>SHIFT 1+0</td><td>Fully opens the IRIS</td></tr>
<tr><td>2</td><td>SHIFT 1+1</td><td>Fully close the IRIS.</td></tr>
<tr><td>3</td><td>SHIFT 1+2</td><td>Minimizes AGC Gain.</td></tr>
<tr><td>4</td><td>SHIFT 1+3</td><td>Maximizes AGC Gain.</td></tr>
<tr><td>5</td><td>SHIFT 1+4</td><td>Turns Fade on.</td></tr>
<tr><td>6</td><td>SHIFT 1+5</td><td>Turns Fade off.</td></tr>
<tr><td>7</td><td>SHIFT 1+6</td><td>NOT USED</td></tr>
<tr><td>8</td><td>SHIFT 1+7</td><td>Switcing the Auto/manual Focus.
* Press the SHIFT 1+7 to select the Auto or Manual Focus.
(The focus mode selected is displayed on Address LED only while the keys are depresses)
<table>
<tr><th>LED INDICATION</th><th>MODE</th></tr>
<tr><td>0</td><td>Manual Focus mode.</td></tr>
<tr><td>1</td><td>Auto Focus mode.</td></tr>
</table></td></tr>
<tr><td>9</td><td>SHIFT 1+8</td><td>White set</td></tr>
<tr><td>10</td><td>SHIFT 1+9</td><td>Making Iris manual condition.</td></tr>
<tr><td>11</td><td>SHIFT 1+A</td><td>Iris is return to Auto Mode.</td></tr>
<tr><td>12</td><td>SHIFT 1+B</td><td>AGC Gain is return to Auto Mode.</td></tr>
<tr><td>13</td><td>SHIFT 2+2</td><td>Writes the Average data and Fixed data to the EEPROM.</td></tr>
<tr><td>14</td><td>SHIFT 2+3</td><td>Automatically Calculates the Colour Reproduction and White Balance.</td></tr>
<tr><td>15</td><td>SHIFT 2+4</td><td>NOT USED</td></tr>
<tr><td>16</td><td>SHIFT 2+5</td><td>Zooms to “WIDE” position.</td></tr>
<tr><td>17</td><td>SHIFT 2+6</td><td>Stop the Zoom.</td></tr>
<tr><td>18</td><td>SHIFT 2+7</td><td>Zooms to “TELE” position.</td></tr>
<tr><td>19</td><td>SHIFT 2+8</td><td>Stop the Zoom.</td></tr>
<tr><td>20</td><td>SHIFT 2+9</td><td>Automatic Calculating for Manual Iris setting.</td></tr>
</table>

Fig. C5

PREPARATION

1) Remove both side cases referring to disassembly method.
2) Connect the E.V.R. FIXTURE and measuring equipment as shown in Fig.C6.


Process C.B.A.
AC Adaptor (VW-AM10)
VFK0823
Camera Operation C.B.A.
Mode Select SW
(Manual condition)
VFK0766A
AC
AC ADAPTOR
(VW-AS1)
VFK0734W
DC 6V
VFK0701ROM7
B303
1
12
24
13
A
B
EVF
VFK0644
19 13 7 1
24 18 12 6
Connect the VFK0766A

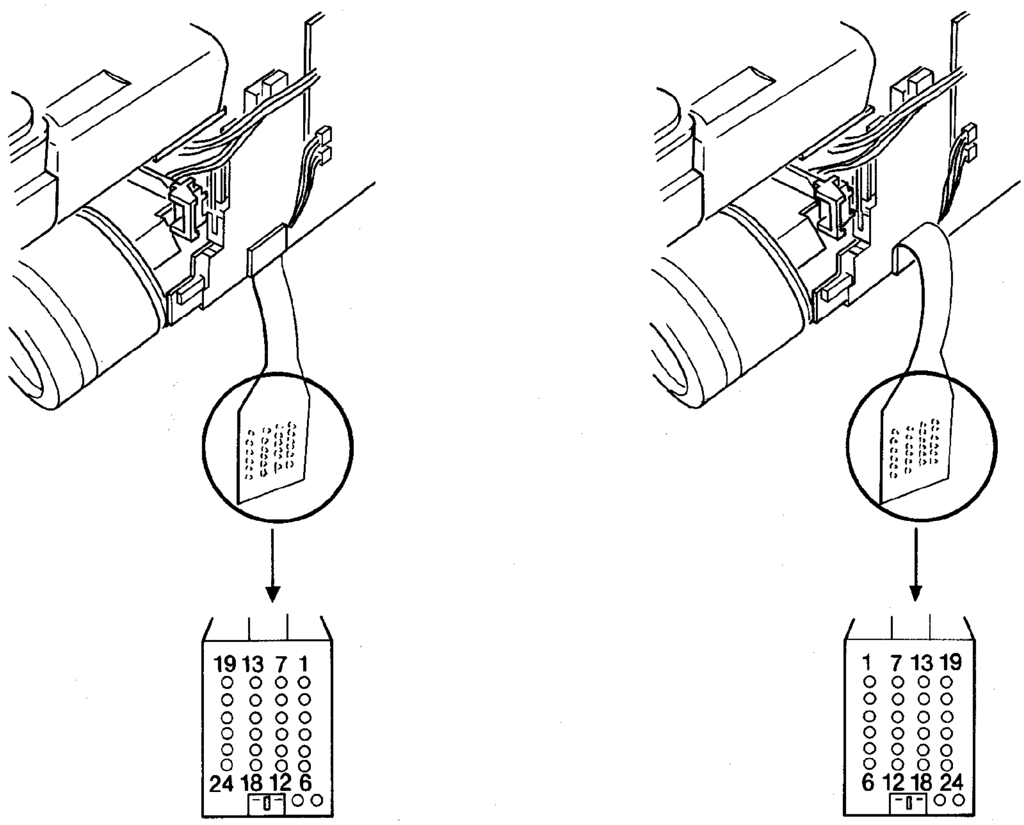
PIN ARRANGEMENT OF B303

1	CAMERA CLOCK
2	SID
3	VD
4	Y SIGNAL
5	CDS OUT
6	A/D IN
7	Vref H
8	Vref T
9	OP2
10	WIDE
11	IRIS OPEN
12	FH2B
13	GND
14	5V
15	TELE
16	Z.ENC
17	Vref-T
18	Vref-L
19	SUB
20	AGC IN
21	AF CLOCK
22	AF DATA
23	CAMERA TEST
24	GND

Note:
VFK0734 is 24 PIN connection cable for Measurement
Pin Arrangement of VFK0734W is same as B303.

Fig. C6-1

How to connect the EVR Fixture



Wrong

Correct

(Front Side of VFK0734W)

(Rear Side of VFK0734W)

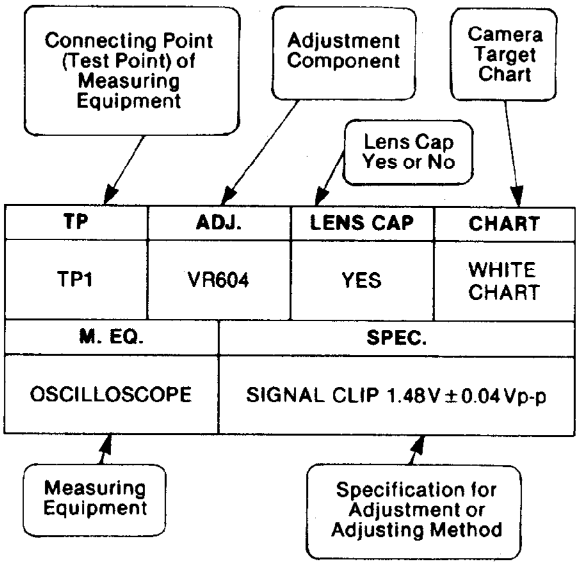
Caution:

If connect the VFK0734W between EVR and Movie camera as above figure, Iris making fully open condition and EVR can't use for Adjustment of camera.

Fig. C6-2

1) Set the mode selector on the E.V.R. Fixture to "A" side. (Refer to Fig.C27)
2) Turn on the power SW of Movie camera.
3) Turn on the power SW of E.V.R. fixture. The LED Display on E.V.R. Fixture will indicate 08,80,00. If it does not indicated, push the Reset button and/or check the cable connections between EVR and CAMERA.
4) Mode Select SW on the camera Operation C.B.A., should be "manual" condition.
   If "AUTO" condition, focus is always "AUTO".

HOW TO READ THE ADJUSTMENT PROCEDURES (FOR USE OF CONVENTIONAL VR)


Connecting Point (Test Point) of Measuring Equipment
Adjustment Component
Camera Target Chart
Lens Cap Yes or No
TP
ADJ.
LENS CAP
CHART
TP1
VR604
YES
WHITE CHART
M. EQ.
SPEC.
OSCILLOSCOPE
SIGNAL CLIP 1.48V ± 0.04Vp-p
Measuring Equipment
Specification for Adjustment or Adjusting Method

Note: If ☒ appears in any block, this means it is not used or not.

Fig. C7

HOW TO READ THE ADJUSTMENT PROCEDURES (FOR USE OF E.V.R.)

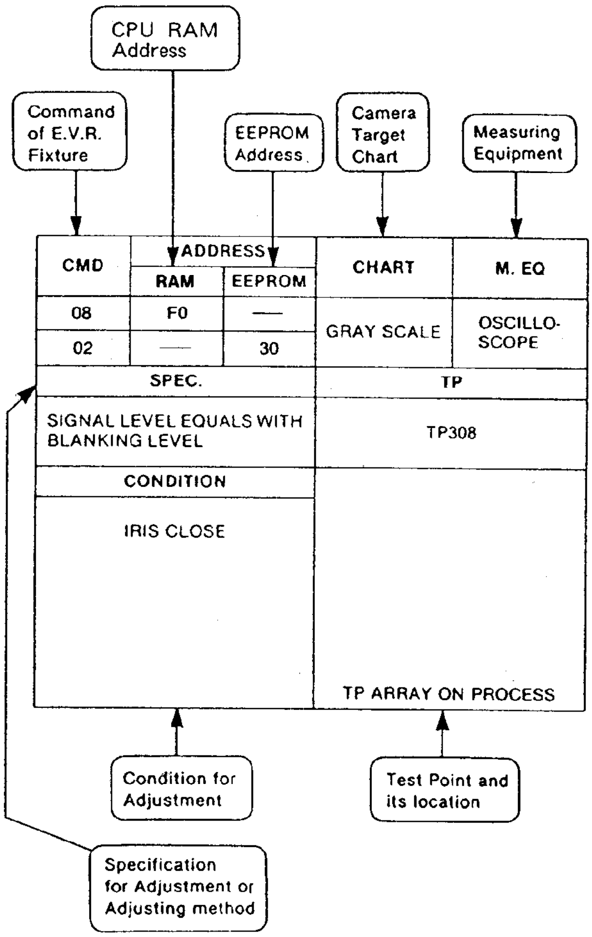

CPU RAM Address
Command of E.V.R. Fixture
EEPROM Address
Camera Target Chart
Measuring Equipment
CMD
ADDRESS
RAM
EEPROM
CHART
M. EQ
08
F0
—
02
—
30
GRAY SCALE
OSCILLO-SCOPE
SPEC.
TP
SIGNAL LEVEL EQUALS WITH BLANKING LEVEL
TP308
CONDITION
IRIS CLOSE
TP ARRAY ON PROCESS
Condition for Adjustment
Test Point and its location
Specification for Adjustment or Adjusting method

Fig. C8

1. DATA WRITING

When EEPROM is replaced, all item needs re–adjustment.

But If VFK0701ROM7 (New ROM) is installed to the EVR Fixture (VFK0644), when the pushing [SHIFT 2 and "2" keys simultaneously,Average Data is written in to EEPROM Automatically.

		UPPER							
LOWER		0	1	2	3	4	5	6	7
0	H DIGIT	B-Y Gain 6000 1D	B-Y MAT 6000 83	B-Y WB 6000 5C	B-Y limit 6000 49	B-hili 6000 4C	BACKUP 1 6E	vap-c1 D0	cnt lapt 25
	L DIGIT	R-Y Gain 6000 1E	R-Y MAT 6000 49	R-Y WB 6000 3E	R-Y limit 6000 1A	R-hili 6000 44	BACKUP 1 99	vap-core 26	g lap 83
1	H DIGIT	B-Y Gain 5100 1D	B-Y MAT 5100 83	B-Y WB 5100 68	B-Y limit 5100 4C	B-hili 5100 74	BACKUP 2 7A	Hap-cor 82	cnt ck B0
	L DIGIT	R-Y Gain 5100 1A	R-Y MAT 5100 49	R-Y WB 5100 41	R-Y limit 5100 1D	R-hili 5100 5D	BACKUP 2 50	hi-1. ap 10	cnt ct B0
2	H DIGIT	B-Y Gain 4500 1E	B-Y MAT 4500 85	R-Y WB 4500 7B	B-Y limit 4500 74	B-hili 4500 92	BACKUP 3 8A	cnt2-up 06	cnt lapk 25
	L DIGIT	R-Y Gain 4500 19	R-Y MAT 4500 43	R-Y WB 4500 3A	R-Y limit 4500 2F	R-hili 4500 4A	BACKUP 3 55	cnt2-dn 80	g lapk F8
3	H DIGIT	B-Y Gain 3600 24	B-Y MAT 3600 86	B-Y WB 3600 8D	B-Y limit 3600 85	B-hili 3600 AA	BACKUP 4 F0	H+gain 20	NOT USED
	L DIGIT	R-Y Gain 3600 1D	R-Y MAT 3600 45	R-Y WB 3600 5C	R-Y limit 3600 4A	R-hili 3600 67	BACKUP 4 1A	Vap-gain 10	NOT USED
4	H DIGIT	B-Y Gain 3300 33	B-Y MAT 3300 84	B-Y WB 3300 96	C-FLAG TH 67	CSPDm 09	agclim 2 A0	c-g-ap 20	NOT USED
	L DIGIT	R-Y Gain 3300 15	R-Y MAT 3300 46	R-Y WB 3300 69	CHSPD 04	CSPDs 1A	EIS ON/OFF 83	c-g-sw 55	NOT USED
5	H DIGIT	B-Y Gain 3100 33	B-Y MAT 3100 84	B-Y WB 3100 A0	B-limit 3100 86	B-hili 3100 D0	ped-h 36	H-st/p 20	NOT USED
	L DIGIT	R-Y Gain 3100 15	R-Y MAT 3100 46	R-Y WB 3100 76	R-limit 3100 67	R-hili 3100 87	ped-1H-ed/p 27	H-ed F8	NOT USED
6	H DIGIT	B-Y Gain 2800 2B	B-Y MAT 2800 84	B-Y WB 2800 A6	B-limit 2800 86	B-hili 2800 D0	ped-st 30	V-st/b 30	NOT USED
	L DIGIT	R-Y Gain 2800 19	R-Y MAT 2800 46	R-Y WB 2800 8E	R-limit 2800 87	R-hili 2800 B3	ped-end 50	v-ed/p 18	NOT USED
7	H DIGIT	STH FF	00	Bwb Llimit 5C	B-limit SKY 00	B-hili SKY 49	NOT USED 01	H-st/b 20	NOT USED
	L DIGIT	00	00	Rwb Llimit 3E	R-limit SKY 17	R-hili SKY 44	flag 3 FD	sw 0D	NOT USED
8	H DIGIT	Hap gain 20	Hap-core 82	Bwb Hlimit 68	B-limit TREE 74	B-hili TREE AA	flag7 FF	Y-base AC	NOT USED
	L DIGIT	Uap gain 10	00	Rwb Hlimit 41	R-limit TREE 17	R-hili TREE 2F	flag8 0F	Vap-core 05	NOT USED
9	H DIGIT	Houwa-U D0	HAP-NO 3C	B-Y WB 4900 68	BWBZ B 00	BWBZ C 00	Tree BK 03	cntlap 4F	NOT USED
	L DIGIT	Houwa-L B0	PEAKLPF 10	R-Y WB 4900 41	RWBZ B 00	BWBZ C 00	P-WAITE A0	g-lap CD	NOT USED
A	H DIGIT	palflag F4	cls4 31	DSP Ver 20	U puls 18	Baxish Th 74	st-alcp 05	D-Aagc 49	NOT USED
	L DIGIT	haloth 17	cls8 71	MODEL-NBR C2	d puls 98	Baxish Th 4A	st-alcn 05	cntc BF	NOT USED
B	H DIGIT	B in 10	VSTART 1D	TH 1 55	TH 3 6F	PALBR 00	open g 1 24	Ychk h A0	NOT USED
	L DIGIT	R in 10	ab set 93	TH 2 22	TH 4 10	LOOPTH 02	open g 2 24	Ychk 1 28	NOT USED
C	H DIGIT	Outb1 9F	inal F3	OPS 4 31	KOTEI A 1F	OPEN 1 9B	OPEN 3 CB	Yclpv 1 65	NOT USED
	L DIGIT	Outb2 7B	ina2 E6	ST 81	KOTEI B 20	OPEN 2 B3	OPEN G 3 24	darklv 1 00	NOT USED
D	H DIGIT	Outb3 5C	ina3 CD	Seki A0	KOTEI C 18	CLOSE 1 73	CLOSE 3 53	BACK UP 46	NOT USED
	L DIGIT	Outb4 4F	ina4 B3	AGC lim 8D	KOTEI D 18	CLOSE 2 63	CLOSE G 3 44	BACK UP 00	NOT USED
E	H DIGIT	Outb0 0B	close 00	SW-set 83	keisha 04	ag cnt1 3F	CORE 04	loop gn 19	NOT USED
	L DIGIT	T-gain 24	open 06	MIX 03	AG-CENTER 9F	f cnd 48	CLOSE G2 64	loop gt 00	NOT USED
F	H DIGIT	A/D IN 7D	AF-ap 90	OR bias 80	R-YKB 4B	LOW CLIP 61	OPS8 71	clpmax F8	NOT USED
	L DIGIT	AF-Vn 58	AF-AMP 1E	PWM-B C8	Y-GAIN 1B	B-YKB 4B	CLOSE G3 84	PAL flkg 41	NOT USED

Fig. C9 Address map of all Average data.

2. VTR CARRIER BALANCE ADJUSTMENT

CMD	ADDRESS		CHART	M. EQ.
	RAM	EEPROM		
18	R:B8 B:BB	——		VECTOR-SCOPE
12, 02	——	R−Y:3F (H) B−Y:4F (L)		

SPEC.	TP
CENTRE OF ECTORSCOPE	VIDEO OUT

Purpose:
Set chroma signal black and white level.

Symptom of Misadjustment:
With a large shift, colour is added to Black and white areas in the picture.

Note:
Refer to preparation for connection of EVR.

<Preparation>
1. Connect the vectorscope to Video out.
2. Aim the camera at white chart.
3. Push [SHIFT 1 + 8] keys simultaneously for white set.
4. Place the unit to "IRIS CLOSE" by pushing [SHIFT 1 + 1] keys simultaneously.

<Adjustment for R−Y>
Push following keys in order.
5. * [CMD], [1], [8].
   * [ADR], [B], [B].
6. Push [INC] or [DEC] keys until the vectors are in or close as possible to the centre, See Fig.C10.

<Data writing for R−Y>
Push following keys in order.
7. * [CMD], [1], [2].
   * [ADR], [3], [F]. (Does not change the data).
   * [SET].

<Adjustment for B−Y>
Push following keys in order.
8 * [CMD], [1], [8].
  * [ADR], [B], [8].
9. * Push [INC] or [DEC] keys until the vectors are in or as close as possible to the centre, See Fig.C10.

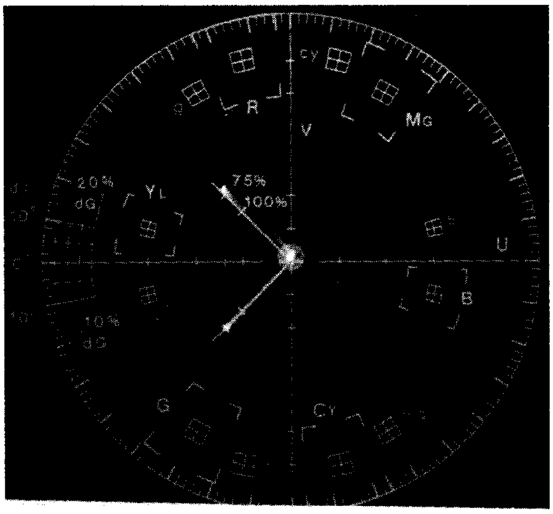
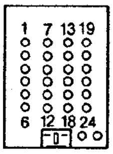


Fig. C10

<Data writing for B−Y>
Push following keys in order.
10. * [CMD], [0], [2].
    * [ADR], [4], [F]. (Does not change the data).
    * [SET].
    * [SHIFT 1 + A] (Iris is return to Auto Mode).

3. HALL AMP ADJUSTMENT

CMD	ADDRESS		CHART	M. EQ.
	RAM	EEPROM		
18	B5	——		D.V.M
	VR701	——		
02	——	IF		

SPEC.	TP
VOLTAGE B303-9 (VFK0734W-PIN 9)= VOLTAGE B303-18 (VFK0734W-PIN 18) VOLTAGE B303-9 (VFK0734W-PIN 9)= VOLTAGE B303-7 (VFK0734W-PIN 7)	B303-9 (PIN Number 9 of VFK0734W) VFK0734W-REAR 

Purpose:
Hall Amp Adjustment

Symptom of Misadjustment:
Hunting occurs or focus stops.

<Preparation>
1. Connect the jumper wire between B303−11 (VFK0734W−PIN11) and GND for Making Iris close. (Do not use EVR for IRIS close)

<Adjustment 1>
Push the following keys in order.
2. * [CMD], [1], [8].
   * [ADR], [B], [5].
3. * Push [INC] or [DEC] keys until the voltage Level at B303−9 (VFK0734W−PIN9) become Vref 1 +− 10mV. (Vref 1 = B303−18 (VFK0734W−PIN18)).

<Data Writing for Adjustment 1>
Push the following keys in order.
4. * [CMD], [0], [2].
   * [ADR], [1], [F].
   * [SET].
   * Remove the jumper wire.

<Adjustment 2>
5. Connect the jumper wire between B303−11 (VFK0734W−PIN11) and B303−14 (VFK0734W −PIN14) for fully open the Iris.
6. Adjust the VR701 so that Voltage at B303−9 (VFK0734W−PIN9) become Vref 3+−30mV. (Vref 3 = B303−7 (VFK0734W−PIN7))
7. Remove the jumper wire.

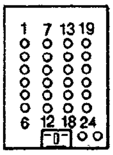
4. PLL FREQUENCY ADJUSTMENT

TP	ADJ.	LENS CAP	CHART
CL203	C223		
M. EQ.		**SPEC.**	
FREQUENCY COUNTER		9.656250MHz+-15Hz	

Purpose:
CCD Drive pulse adjustment

Symptom of Misadjustment:
Picture sync misoperation.

5. P WM ADJUSTMENT

CMD	ADDRESS		CHART	M. EQ.
	RAM	EEPROM		
18	B7	—		D.V.M
02	—	2F (L)		
SPEC.			**TP**	
			B303-9 (VFK0734W-PIN 9) VFK0734W-REAR 	

<Pre paration>
1. Set the Iris to "open". (Push [SHIFT 1 + 0]).
2. Connect the D.V.M. to B303-9 (VFK0734W-PIN9).

<Pre-Adjustment>

Push the following keys in order.

3. * [CMD], [1], [8].
   * [ADR], [B], [7].
4. Push [INC] or [DEC] keys until the Voltage level at B303-9 (VFK0734W-PIN9) become Vref 1+-50mV. (Vref 1 = Voltage at B303-7-500mV)
5. * [SHIFT 1 + 1] (fully close the Iris).
6. * [SHIFT 1 + 0] (fully open the Iris)..

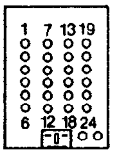
<Fine-Adjustment>
Push the following keys in order.

7. * [CMD], [1], [8].
   * [ADR], [B], [7].
8. Push [INC] or [DEC] keys until the Voltage level at B303-9 (VFK0734W-PIN9) become Vref2+-20mV. (Vref 2 = Voltage at B303-7-140mV).

<Data Writing>
Push the following keys in order.

9. * [CMD], [0], [2].
   * [ADR], [2], [F]. (Does not change the data).
   * [SET].
   * [SHIFT 1 + A] (Iris is return to Auto Mode).

6. ZOOM ENCODER AND FOCUS ENCODER ADJUSTMENT

CMD	ADDRESS		CHART	M. EQ.
	RAM	EEPROM		
18	T: B4 W: B3	—	object: 1m (Hunting chart)	DIGITAL VOLTMETER
12	—	T: 1F (H)		
02	—	W: OF (L)		
SPEC.			**TP**	
To be calculated			B303-8 (VF0734W-8) B303-17 (VFK0734W-17) VFK0734W-REAR 	
CONDITION				
• Focus Manual (SHIFT 1+7)				

Note:
1) Unless you replaced Zoom Encoder, 3rd lens (1) unit or 4th moving frame (1) unit, do not perform this adjustment. (Because this adjustment is critical).
2) Regarding the connection of EVR, refer to preparation. (Fig.C6)

<Initial Measurement and Preparation>

1. Check the voltage at B303-8(VFK0734W-PIN8) and B303-17(VFK0734W-PIN17) before changing the defective lens unit.
   For example:
   B303-8(VFK0734W-PIN8) : 3.652V
   B303-17(VFK0734W-PIN17) : 1.456V

2. Make note the potential difference between B303-8(VFK0734W-PIN8) and B303-17(VFK0734W-PIN17).
   For example:
   3.652-1.456 = 2.196V

3. Turn off the power SW.

4. Replace lens unit.

5. Loosen 2 screws of Focus encoder C.B.A. and move C.B.A. to center position as shown in Fig.C11-1.

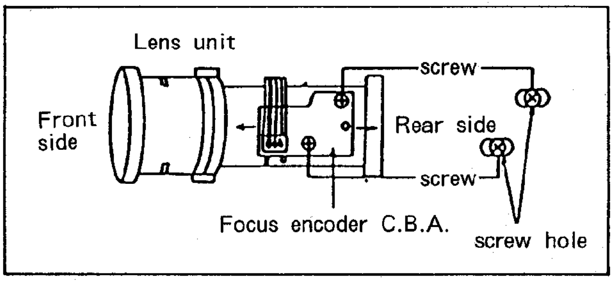


Fig. C11-1

6. Turn on the power SW.

7. Set the Focus system to Manual Focus.
   (Pushing [SHIFT 1 + 7] keys simultaneously switches the Focus system between Manual and Auto Focus, "0" displayed at address LED while [SHIFT 1 + 7] keys depressed indicates Manual Focus, "1" indicates Auto Focus.

8. Zoom the lens to full tele position.
   Push [SHIFT 2 + 7] keys simultaneously.

9. Aim the unit at Hunting chart from a distance 1 meter.
10. Set the focus to full (−) position.
    * Turn the focus ring counterclockwise until the picture focus does not change.

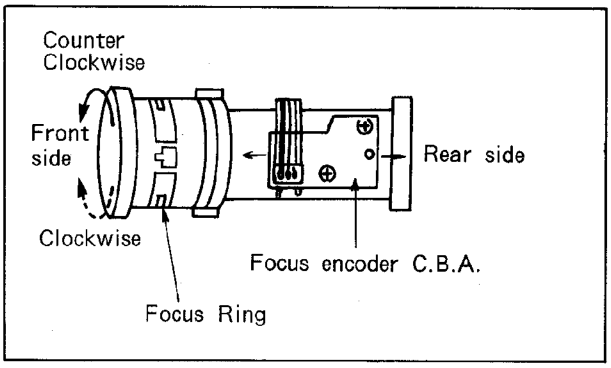


Fig. C11−2

<Adjustment for Tele Side>
Push the following keys in order.

11. * [CMD], [1], [8].
    * [ADR], [B], [4].

12. * Push [INC] or [DEC] keys until the lens focus is in correct position.

[Note 1]
The focus does not change while focus voltage is being adjusted on the EVR.
To see the focus adjustment the lens unit must be zoomed from TELE to WIDE and back to TELE to activate the focus.

[Note 2]
Using the zoom controls on the EVR disables the Zoom controls of TELE/WIDE button on the camera.
Therefore, use EVR([SHIFT 2 + 7] or [SHIFT 2 + 5]) to move zoom for the TELE or WIDE position.

13. When lens focus comes to the correct position cat fully TELE Side), Push the following keys in order for store the data to EEPROM directly.
    * [CMD], [1], [2].
    * [ADR], [1], [F].
    * [SET].

    If the lens assembly cannot be focused, the Focus Encoder C.B.A. must be repositioned.
    Turn the focus ring clockwise.
    * If the focus improves more, the Focus Encoder C.B.A. to the rear.
    * If the focus deteriorates more, the Focus Encoder C.B.A. to the front.

    Return to Step(6) to reposition the Focus Encoder C.B.A..

<Adjustment for Wide Side>

14. Check the Voltage at **B303-8 (VFK0734W-PIN 8).**
15. Subtract the voltage that was noted at step(2) from the voltage at step(14).
    For example:
    If the voltage at B303−8(VFK0734W−PIN8) is 3.662V.
    3.662 − 2.196 = 1.466
16. Set the voltage at B303−17(VFK0734W−PIN17) to 1.466V with EVR as follows.
    Push the following keys in order.
    * [CMD], [1], [8].
    * [ADR], [B], [3].
    * Push [INC] or [DEC] until the voltage at B303−17(VFK0734W−PIN17) is 1.466V.
17. Push the following keys in order for store the data to EEPROM Directly.
    * [CMD], [0], [2]. (Does not change the data).
    * [ADR], [0], [F].
    * [SET].

<Confirm the focus when zooming to Wide Side>
18. Turn OFF and ON the Power SW.
19. Set the focus system to Manual focus as step(7).
20. Check the back focus while Zooming.
    (If back focus is not good refer to following table)

1) Focus is not good at full wide side.

   Adjust the data of ADR "B3" at the full Wide Side keeping the voltage at B303−(18) within +− 0.05V of the voltage in Step(16).

   Check back focus While Zooming.
   * If back focus is good, go to Step(19).
   * If back focus is not good, stop the zoom at the position of bad focus.
     Turn the focus ring clockwise and/or counter−clockwise.

     If focus improves when the focus ring is turned counter−clockwise reposition the Focus Encoder C.B.A. to the front.

     If focus improves when the focus ring is turned clockwise, reposition the Focus Encoder C.B.A. to the rear.

     Return to Step(5) to reposition the Focus Encoder C.B.A.

2) Focus is not good−between TELE and WIDE.
   Stop the zoom at the position of bad focus.
   Turn the focus ring clockwise and/or counter−clockwise.
   * If focus improves when the focus ring is turned counter−clockwise, reposition the Focus Encoder C.B.A. to the front.
   * If focus improves when the focus ring is turned clockwise, reposition the Focus Encoder C.B.A. to the rear.
     Return to Step(5) to reposition the Focus Encoder C.B.A..

7. V–SUB ADJUSTMENT

CMD	ADDRESS		CHART	M. EQ.
	RAM	EEPROM		
18	B6	—	HALOGEN LAMP	MONITOR TV
12	—	2F		
SPEC.			TP	
NO BLOOMING				

1. Zoom all the way in (full tele position or full wide position) and aim the camera at the Halogen Lamp as shown in Fig.C12.
2. Set the High Speed Shutter SW to "OFF" position.
3. Diffuse the incoming light using frosted glass or acryl plate. Place the cardboard which has been cut to "U" shape as shown in Fig.C12. between the diffusion plate and the camera.
4. Set the Iris to "Open [SHIFT 1 + 0].

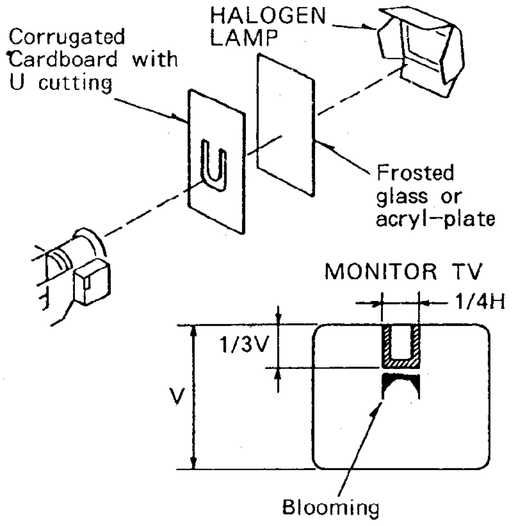

HALOGEN LAMP
Corrugated Cardboard with U cutting
Frosted glass or acryl–plate
MONITOR TV
1/4H
1/3V
V
Blooming

Fig. C12

<Adjustment>
Push the following keys in order.

5. * [CMD], [1], [8].
   * [ADR], [B], [6].
6. * Push [INC], or [DEC] keys until the blooming disappears (If blooming does not disappear completely, adjust until the blooming mimize).

<Data Writing>

Push the following keys in order.

7. * [CMD], [1], [2].
   * [ADR], [2], [F].
   * [SET].
   * [SHIFT 1 + A].
8. Confirm that the monitored picture does not contain Blooming in both High Speed Shutter "ON" and "OFF" modes even if the camera moves as shown in Fig.C13.

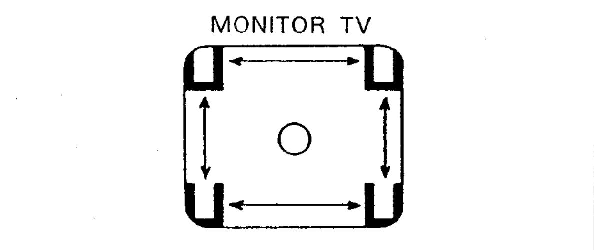
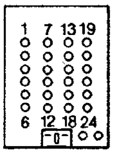


Fig. C13

8. PEDESTAL LEVEL ADJUSTMENT

CMD	ADDRESS		CHART	M. EQ.
	RAM	EEPROM		
18	BA	—		OSCILLO-SCOPE
12	—	4F		
SPEC.			TP	
A=0mV±10mV			B303-6 (VFK0734W-6) VFK0734W-REAR  	

<Preparation>
1. Cover the lens.
   Push [SHIFT 1 + 3] keys (Maximizes AGC Gain).
   Push [SHIFT 1 + 9] keys (Making Iris manual condition).
2. Connect the oscilloscope to B303–6(VFK0734W–PIN6).

<Adjustment>
   Push the following keys in order.
3. * [CMD], [1], [8].
   * [ADR], [B], [A].
4. * Push [INC] or [DEC] keys until the "A" level is minimized, as shown in Fig.C14.

<Data writing>
   Push the following keys in order.
5. * [CMD], [1], [2].
   * [ADR], [A], [F].
   * [SET].
6. * [SHIFT 1 + A].

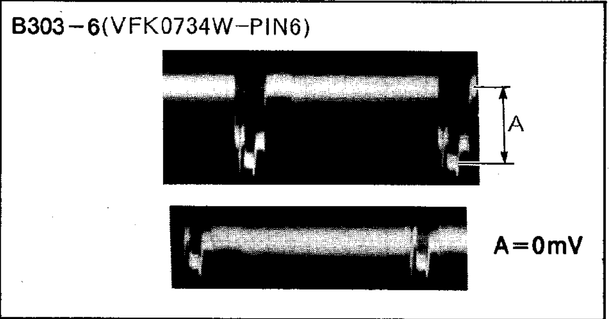
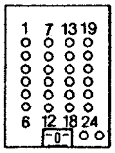


Fig. C14

9. AGC ADJUSTMENT

CMD	ADDRESS		CHART	M. EQ.
	RAM	EEPROM		
18	BC	—	GRAY SCALE CHART	OSCILLO-SCOPE
12	—	6A		
SPEC.			TP	
230mV±20mV			B303-5 (VFK0734W-PIN 5) B303-20 (VFK0734W-PIN 20) VFK0734W-REAR 	

Purpose:
Set standard signal gain.

Symptom of Misadjustment:
The picture is sometimes too dark or too bright.

< Preset for AGC Adjustment >
1. Making Iris manual condition [SHIFT 1+9].
2. Aim the camera at Gray Scale Chart.
3. Connect the Oscilloscope to B302-5. (VFK0734W-PIN5)

< Preset 1-Rough >
Push the following keys in order.
4. * [CMD], [1], [8].
 * [ADR], [D], [F].
5. * Push [INC] or [DEC] keys until signal level at B303-5 (VFK0734W-PIN5) is 250mV+-10mV.

< Preset 2-Fine >
Push the following keys in order.
6. * [CMD], [1], [8].
 * [ADR], [D], [E].
7. * Push [INC] or [DEC] keys until signal level at B303-5 (VFK0734W-PIN5) is 250mV+-10mV.

< AGC Adjustment >
Push the following keys in order.
8. * [CMD], [1], [8].
 * [ADR], [B], [C].
9. * Push [INC] or [DEC] keys until the signal level at B303-20 (VFK0734W-PIN20) is 230mV+-20mV.

B303-5
(VKF0734W-PIN5)

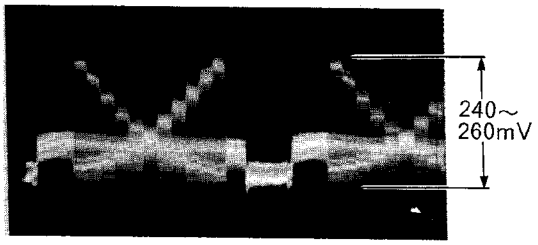


Fig. C15-1

B303-20 (VFK0734W-PIN20)

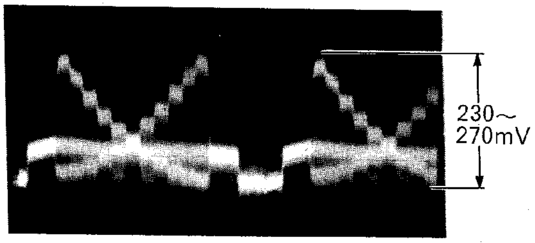
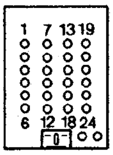


Fig. C15-2

< Data Writing >
Push the following keys in order.
10. * [CMD], [1], [2]. (Does not change the Data).
 * [ADR], [6], [A].
 * [SET].
11. * Push [SHIFT 1+A] keys (Iris return to Auto mode)

10. A/D INPUT LEVEL ADJUSTMENT

CMD	ADDRESS		CHART	M. EQ.
	RAM	EEPROM		
18	B1	—	GRAY SCALE CHART	OSCILLO-SCOPE
12	—	0F		
SPEC.			TP	
1.2V±40mV			B303-5 (VFK0734W-PIN 5) B303-6 (VFK0734W-PIN 6) 	

Purpose:
A/D converter input Level adjustment.

Symptom of Misadjustment:
The picture becomes too dark or too bright.

< Preset for AGC Adjustment >

1. Making Iris manual condition [SHIFT 1+9].
2. Aim the camera at Gray Scale Chart.
3. Connect the Oscilloscope to B302–5. (VFK0734W–PIN5)

< Preset 1–Rough >

Push the following keys in order.

4. * [CMD], [1], [8].
   * [ADR], [D], [F].
5. * Push [INC] or [DEC] keys until signal level at B303–5 (VFK0734W–PIN5) is 250mV+–10mV.

< Preset 2–Fine >

Push the following keys in order.

6. * [CMD], [1], [8].
   * [ADR], [D], [E].
7. * Push [INC] or [DEC] keys until signal level at B303–5 (VFK0734W–PIN5) is 250mV+–10mV.

< A/D Input level Adjustment >

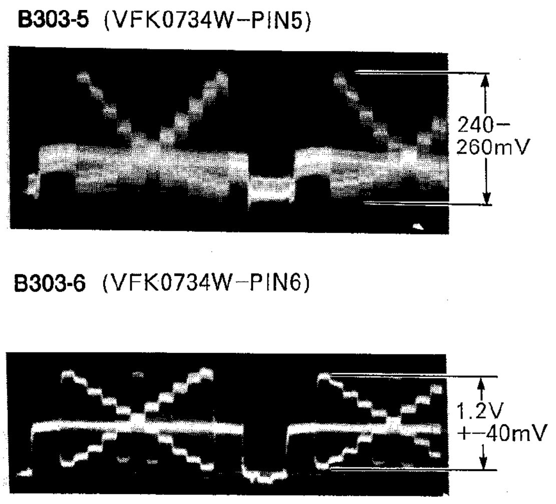
8. * [CMD], [1], [8].
   * [ADR], [B], [1].
9. * Push [INC] or [DEC] keys until the signal level at B303–6 (VFK0734W–PIN6) is 1.2V+–40mV.

< Data Writing >

Push the following keys in order.

10. * [CMD], [1], [2]. (Does not change the Data)
    * [ADR], [0], [F].
    * [SET].

    Push [SHIFT 1+A] keys. (Iris return to Auto mode)

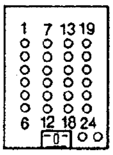


B303-5 (VFK0734W–PIN5)

B303-6 (VFK0734W–PIN6)

Fig. C16

11. ALC ADJUSTMENT

CMD	ADDRESS		CHART	M. EQ.
	RAM	EEPROM		
18	D4	—	GRAY SCALE CHART	OSCILLO-SCOPE
02	—	2C		
SPEC.			TP	
1.20V±40mV			B303-6 (VFK0734W-PIN 6)  	

Note:
Perform this adjustment after finishing the AGC and A/D INPUT LEVEL ADJUSTMENT.

Purpose:
ALC level adjustment.

Symptom of Misadjustment:
The picture is too white or too dark.

<Preparation>

1. Set the IRIS to Auto [SHIFT 1 + A].
2. Aim the camera at Gray Scale Chart.
3. Connect the oscilloscope to B303–6(VFK0734W–PIN6).

<Adjustment>

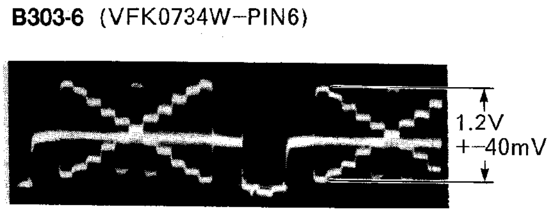
Push the following keys in order.

4. * [CMD], [1], [8].
   * [ADR], [D], [4].
5. * Push [INC] or [DEC] keys until the signal level at B303–6(VFK0734W–PIN6) is 1.20V +–40mV.

<Data Writing>

Push the following keys in order.

6. * [CMD], [0], [2]. (Does not change the Data)
   * [ADR], [2], [C].
   * [SET].



B303-6 (VFK0734W–PIN6)

Fig. C17

12. MANUAL IRIS ADJUSTMENT

NO.	ITEM	EEPROM ADDRESS	FORMULA	CMD	RESULT OF CALCULATION
1	OPEN1	4C (High digit)	ADR (2C)+24	READ: 04 WRITE: 12	
2	OPEN2	4C (Low digit)	ADR (4C)+24	READ: 14 WRITE: 02	
3	OPEN3	5C (High digit)	ADR (4C)+24	READ: 04 WRITE: 12	
4	CLOSE1	4D (High digit)	ADR (2C)−16	READ: 04 WRITE: 12	
5	CLOSE2	4D (Low digit)	ADR (4D)−16	READ: 14 WRITE: 02	
6	CLOSE3	5D (High digit)	ADR (4D)−16	READ: 04 WRITE: 12	

Calculation for Manual IRIS.

Note 1:
ADR(2C) = ALC Data

Note 2:
Push [SHIFT 2 + 9] keys simultaneously.
(All formulas for Manual Iris are performed and results are stored into EEPROM Automatically

Note 3:
If the ALC Adjustment is incorrect the Manual Iris SET UP will also be incorrect.
Be sure to carry out the ALC Adjustment procedure correctly before doing the Manual Iris Adjustment.

* Example
Item 1 : OPEN 1
Formula : ADR(2C)+24

Read out the data From Address(2C) of EEPROM as follows.

* Select read command(04) => Push [CMD],[0],[4].
* Select Address(2C) => Push [ADR],[2],[C].
* Push (SET) to Read the data => Push [SET].

When the (SET) key is pushed, the data LED will indicate the data of Address(2C).
Convert this data to decimal.
If data LED indicate(6D).
HEX(6D) = 109(Decimal Value)

Now using the formula (2C)+24 Calculate the Reset.
(Substitute the Decimal Value for the HEX data in (2C)109+24=133.

Convert the Result to a HEX Value using the table (Fig.C18)
133(decimal)=85(in HEX CODE)

Store the above HEX Value in the EEPROM.
Address(4C) High digit as follows.

* Select command(12) => Push [CMD],[1],[2].
* Select Address(4C) => Push [ADR],[4],[C].
* Set the data(85) => Push [DATA],[8],[5].
* Push (SET) to write the data => Push [SET].

Note 4:
Priority of Formula.

ADR "2C"(Low digit) = ALC Adjustment

1. OPEN 1 : "4C"(High digit) =

ADR "2C"(Low digit)+24

2. OPEN 2 : "4C"(Low digit) =

ADR "4C"(High digit)+24

3. OPEN 3 : "5C"(High digit) =

ADR "4C"(Low digit)+24

ADR "2C"(Low digit) = ALC Adjustment

4. CLOSE 1 : "4D"(High digit) =

ADR "2C"(Low digit)−16

5. CLOSE 2 : "4D"(Low digit) =

ADR "4D"(High digit)−16

6. CLOSE 3 : "5D"(High digit) =

ADR "4D"(Low digit)−16

Hexadecimal lower digit / Hexadecimal upper digic	0	1	2	3	4	5	6	7	8	9	A	b	C	② d	E	F
0	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
2	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47
3	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63
4	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79
5	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95
① 6	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111
7	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127
8	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143
9	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159
A	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175
b	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191
C	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207
d	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223
E	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239
F	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255

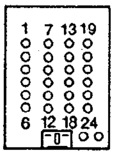
For example: If indication of EVR is "6D" (as upper digit is "6" and lower digit is "D"), a decimal value of "109" is obtained from the intersection of ① and ② in the above table.

Fig. C18 Hexadecimal–Decimal Conversion Table

(Hexadecimal–Decimal Conversion Table)

For some of adjustment items, calculation of hexadecimal data (indicated on LED of EVR Fixture) is needed to obtain the adjustment data.
In these cases, convert the hexadecimal value to decimal value before calculation and after calculation is finished reconvert the result to hexadecimal to obtain the adjustment data. Write the new hexadecimal adjustment data into EEPROM.
A hexadecimal–decimal conversion table is shown in Fig.C18.

13. Y CLIP LEVEL ADJUSTMENT

CMD	ADDRESS		CHART	M. EQ.
	RAM	EEPROM		
18	B9	—	WHITE CHART	OSCILLO-SCOPE
02	—	3F		
SPEC.			TP	
V/S=7.7:3			B303-4 (VFK0734W-PIN 4) VFK0734W-REAR 	

<Preparation>

1. Set the IRIS to "OPEN". [SHIFT1 + 0].
2. Aim the camera at white chart.
3. Connect the Oscilloscope to B303–4. (VFK0734W–PIN4)

<Adjustment>

Push the following keys in order.

4. * [CMD], [1], [8].
   * [ADR], [B], [9].
5. * Push [INC] or [DEC] keys until ratio of V and S is 7.7:3.

<Data Writing>

Push the following keys in order.

6. * [CMD], [0], [2]. (Does not change the data)
   * [ADR], [3], [F].
   * [SET].
7. * [SHIFT 1 + A] (IRIS return to Auto Mode)

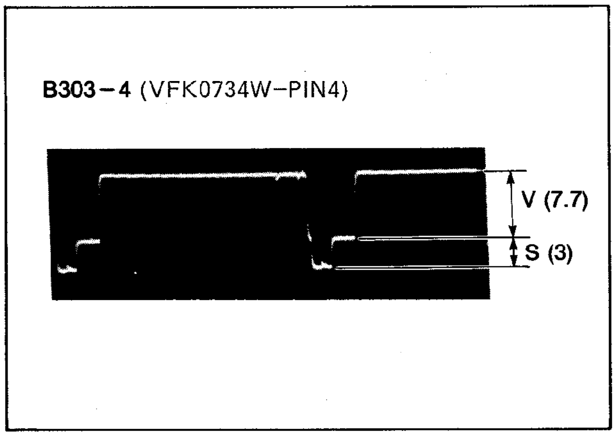


Fig. C19

14. INDOOR WHITE BALANCE ADJUSTMENT

<table>
<tr><th rowspan="2">CMD</th><th colspan="2">ADDRESS</th><th rowspan="2">CHART</th><th rowspan="2">M. EQ</th></tr>
<tr><th>RAM</th><th>EEPROM</th></tr>
<tr><td>09</td><td>BB (R-Y)
AB (B-Y)</td><td>—</td><td rowspan="3">WHITE CHART</td><td rowspan="3">VECTOR-SCOPE OR OSCILLO-SCOPE</td></tr>
<tr><td>02</td><td>—</td><td>25 (R-Y)</td></tr>
<tr><td>12</td><td>—</td><td>25 (R-Y)</td></tr>
<tr><th colspan="3">SPEC.</th><th colspan="2">TP</th></tr>
<tr><td colspan="3">VECTOR COMES CENTRE OR WAVEFORM IS MINIMIZED</td><td colspan="2">VIDEO OUT</td></tr>
<tr><th colspan="3">CONDITION</th><td colspan="2" rowspan="2"></td></tr>
<tr><td colspan="3">IRIS: ALC</td></tr>
</table>

<Preparation>

1. Connect the Video out to Vectorscope.
2. Aim the camera at white chart.
   And Push [SHIFT 1 + 8] for white set.
   (Please confirm, vector came to center)

<Read Out the data for R–Y>

Push the following keys in order.

3. * [CMD], [0], [9].
   * [ADR], [B], [B].
   * [SET].

   (When the pushed [SET] key, Data LED of EVR indicate the data of white balance for R–Y)

<Data Writing for R–Y>

Push the following keys in order.

4. * [CMD], [0], [2]. (Do not change the data)
   * [ADR], [2], [5].
   * [SET].

<Read Out the data for B–Y>

Push the following keys in order.

5. * [CMD], [0], [9].
   * [ADR], [A], [B].
   * [SET].

   (When the pushed [SET] key, Data LED of EVR indicate the data of white balance for B–Y)

<Data writing for B–Y>

Push the following keys in order.

6. * [CMD], [1], [2]. (Do not change the data)
   * [ADR], [2], [5].
   * [SET].

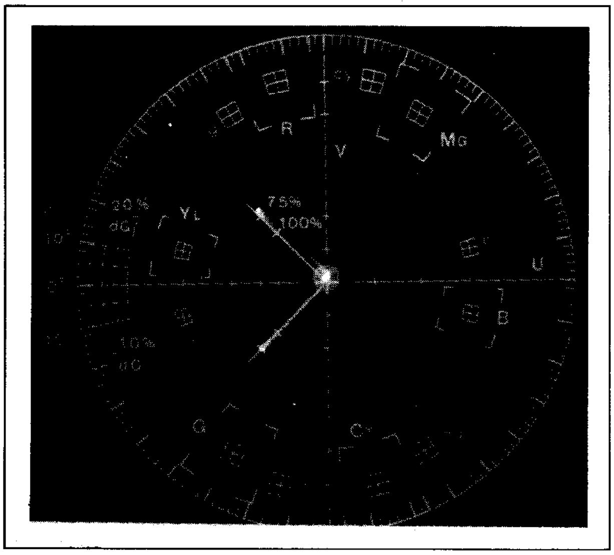


Fig. C20

15. COLOUR PHASE AND GAIN ADJUSTMENT (INDOOR)

CMD	ADDRESS		CHART	M. EQ.
	RAM	EEPROM		
08	95 (R-Y G) 97 (R-Y P) 94 (B-Y G) 96 (B-Y P)	—	COLOUR BAR CHART	VECTOR SCOPE
02	—	05 (R-Y G) 15 (R-Y P)		
12	—	05 (B-Y G) 15 (B-YP)		
SPEC.			TP	
RED: 104+ −3 degree/PHASE 190% + −10%/GAIN (RED/BURST) 168+ −3 degree/PHASE 140% + −10%/GAIN (Yellow/BURST)			VIDEO OUT	

Note:
Be sure to carry out the Indoor White Balance Adjustment before doing this Adjustment.

1. Aim the camera at Colour Bar Chart.
2. Connect the Video out to vectorscope.

<R−Y GAIN>
(Step3 to 5 are R−Y Gain Adjustment)

Push the following keys in order.

3. * [CMD], [0], [8].
   * [ADR], [9], [5].
4. * Push [INC] or [DEC] keys until phase of red and yellow vectors are as close as possible to Spec. See Fig.C21.

<Data Writing for R−Y Gain>
Push the following keys in order.

5. * [CMD], [0], [2]. (Does not change the data)
   * [ADR], [0], [5].
   * [SET].

<R−Y PHASE>
(Step6 to 8 are R−Y Phase Adjustment)
Push the following keys in order.

6. * [CMD], [0], [8].
   * [ADR], [9], [7].
7. * Push [INC] or [DEC] keys until phase of red and yellow vectors are as close as possible to Spec. See Fig.C21.

<Data Writing for R−Y Phase>

Push the following keys in order.

8. * [CMD], [0], [2]. (Does not change the data)
   * [ADR], [1], [5].
   * [SET].

<B−Y Gain>
(Step9 to 11 are B−Y Gain Adjustment)
Push the following keys in order.

9. * [CMD], [0], [8].
   * [ADR], [9], [4].
10. * Push [INC] or [DEC] keys until phase of red and yellow vectors are as close as possible to Spec. See Fig.C21.

<Data Writing for B−Y GAIN>
Push the following keys in order.

11. * [CMD], [1], [2].
    * [ADR], [0], [5].
    * [SET].

<B−Y PHASE>
(Step12 to 14 are B−Y PHASE Adjustment)
Push the following keys in order.

12. * [CMD], [0], [8].
    * [ADR], [9], [6].
13. * Push [INC] or [DEC] keys until phase of red and Yellow Vectors are as close as possible to Spec. See Fig.C21.

<Data Writing for B−Y PHASE>
Push the following keys in order.

14. * [CMD], [1], [2].
    * [ADR], [1], [5].
    * [SET].
15. Repeat the Step(3) to Step(14) unit vectors becomes within Spec.

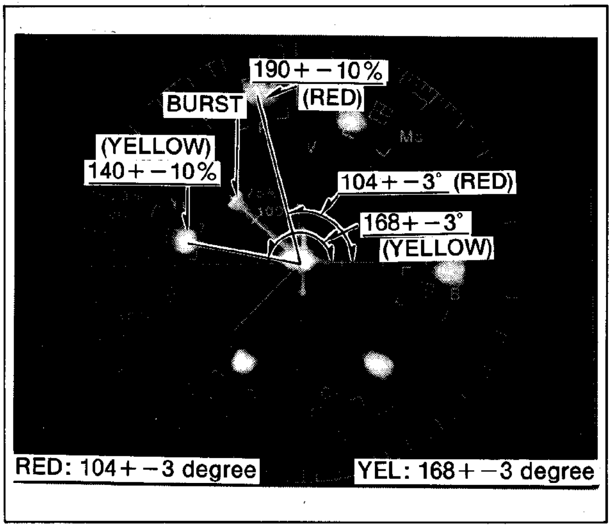


Fig. C21

16. OUTDOOR WHITE BALANCE ADJUSTMENT

CMD	ADDRESS		CHART	M. EQ
	RAM	EEPROM		
09	BB (R-Y) AB (B-Y)	—	WHITE CHART	VECTOR-SCOPE OR OSCILLO-SCOPE
02	—	21 (R-Y)		
12	—	21 (B-Y)		
SPEC.			TP	
VECTOR COMES CENTRE OR WAVEFORM IS MINIMIZED			VIDEO OUT	
CONDITION				
TEMPERATURE CONVERSION FILTER: VFK0713 (C12) VFK0716 (C2) IRIS: ALC				

Purpose:
Set standard white level for each colour temperature.

Symptom of Misadjustment:
White becomes bluish or reddish.

<Preparation>
1. Connect the Video Out to Vectorscope.
2. Cover the lens with colour temperature conversion filter VFK0713 and VFK0716 to imitate the Outdoor lighting.
3. Aim the camera at white chart, and push [SHIFT 1 + 8] keys for white set.
(Please confirm, vectors came to center)

<Read Out the data for R−Y>

Push the following keys in order.

4. * [CMD], [0], [9].
* [ADR], [B], [B].
* [SET].
(When the pushed [SET] key, Data LED of EVR indicate the data of white balance for R−Y)

<Data Writing for R−Y>

Push the following keys in order.

5. * [CMD], [0], [2]. (Does not change the data)
* [ADR], [2], [1].
* [SET].

<Read Out the data for B−Y>
Push the following keys in order.

6. * [CMD], [0], [9].
* [ADR], [A], [B].
* [SET].

(When the pushed [SET] key, data LED of EVR indicate the data of white balance for B−Y)

<Data Writing for B−Y>
Push the following keys in order.

7. * [CMD], [1], [2]. (Does not change the data)
* [ADR], [2], [1].
* [SET].

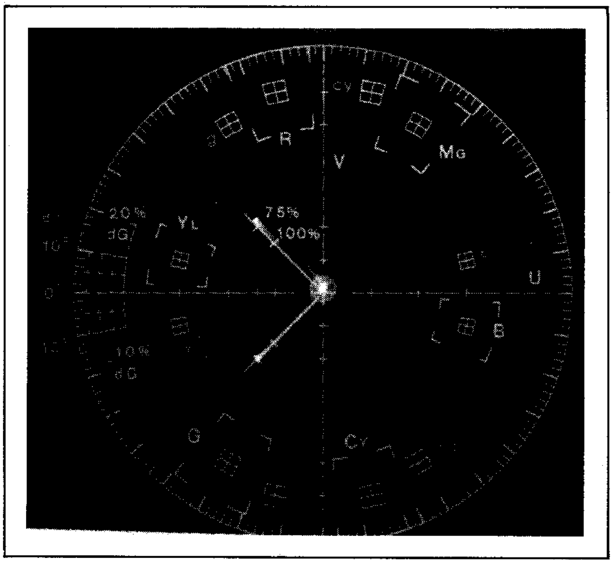


Fig. C22

17. COLOUR PHASE AND GAIN ADJUSTMENT (OUTDOOR)

CMD	ADDRESS		CHART	M. EQ.
	RAM	EEPROM		
08	95 (R-Y G) 97 (R-Y P) 94 (B-Y G) 96 (B-Y P)	—	COLOUR BAR CHART	VECTOR SCOPE
02	—	01 (R-Y G) 11 (R-Y P)		
12	—	01 (B-Y G) 11 (B-YP)		
SPEC.			TP	
RED: 104+−3 degree/ PHASE, 190%+−10% GAIN (Red/BURST) YEL: 168+−3 degree/ PHASE, 140%+−10% GAIN Yellow/BURST)			VIDEO OUT	

Note:
Be sure to carry out the Outdoor white balance Adjustment before doing this Adjustment.

<Preparation>
1. Connect the Video output to vectorscope.
2. Aim the camera at colour bar chart and cover the lens with colour temperature conversion filter VFK0713 and VFK0716 to imitate the outdoor lighting.

<R−Y Gain>
(Step3 to 5 are R−Y Gain Adjustment)

Push the following keys in order.

3. * [CMD], [0], [8].
* [ADR], [9], [5].
4. * Push [INC] or [DEC] keys until phase of red and yellow vectors are as close as possible to Spec. See Fig.C22.

<Data Writing for R−Y Gain>
Push the following keys in order.

5. * [CMD], [0], [2]. (Do not change the data)
* [ADR], [0], [1].
* [SET].

<R−Y PHASE>
(Step6 to 8 are R−Y Phase Adjustment)

Push the following keys in order.

6. * [CMD], [0], [8].
* [ADR], [9], [7].
7. * Push the [INC] or [DEC] keys until phase of red and yellow vectors are as close as possible to Spec. See Fig.C23.

<Data Writing for R−Y Phase>

Push the following keys in order.

8. * [CMD], [0], [2]. (Do not change the data)
* [ADR], [1], [1].
* [SET].

<B-Y Gain>
(Step9 to 11 are B-Y Gain Adjustment)

Push the following keys in order.

9. * [CMD], [0], [8].
   * [ADR], [9], [4].
10. * Push [INC] or [DEC] keys until phase of red and yellow vectors are as close as possible to Spec. See Fig.C23.

<Data Writing for B-Y Gain>

Push the following keys in order.

11. * [CMD], [1], [2]. (Do not change the data)
    * [ADR], [0], [1].
    * [SET].

<B-Y PHASE>
(Step12 to 14 are B-Y Phase Adjustment)

Push the following keys in order.

12. * [CMD], [0], [8].
    * [ADR], [9], [6].
13. * Push [INC] or [DEC] keys until phase of red and yellow vectors are as close as possible to Spec. See Fig.C23.

<Data Writing for B-Y Phase>

Push the following keys in order.

14. * [CMD], [1], [2]. (Do not change the data)
    * [ADR], [1], [1].
    * [SET]
15. Repeat the Step(3) to Step(14) until vectors becomes within Spec. as shown in Fig.C23.

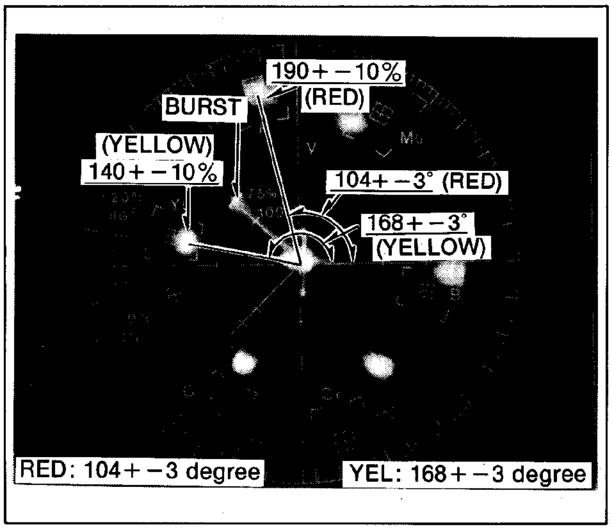


Fig. C23

18. DATA WRITING FOR COLOUR REPRODUCTION AND WHITE BALANCE

Purpose:

Each adjustment voltage is recorded in EEPROM as digital data. For colour reproduction adjustments such as white balance, phase and gain adjustments, the adjustments have only been performed for indoor lighting (3200 degree kelvin) and outdoor lighting (5600 degree kelvin). The EEPROM requires the data for other lighting conditions such as 3600 degree kelvin, 4500 degree kelvin and 6000 degree kelvin. In order to supply the rest of the data the following calculation has to be done and the results entered in the proper address of EEPROM.

Misentering:

White balance and colour reproduction in lighting conditions between indoor and outdoor are poor.

Note 1:

VFK0701ROM7 (New ROM) for EVR must be installed in EVR fixture.
Mode selector should be "A" side.

1. Push [SHIFT 2 + 3] key simultaneously.
   (All formulas in Fig.C24, are performed and results stored in EEPROM automatically)

Note 2:

How to calculate and enter the data manually.
You can do calculation and entering the data to EEPROM manually as follows;

(For example)
ITEM : R-Y GC 36

FORMULA : ADR05+0.882x(ADR01−ADR05)

EEPROM ADDRESS : 03

1) Read Out the data.
   ADR05 : Set the command to "04".
   Set the address to "05".
   Push the "SET" button.
   The number which is indicated in "DATA" LED is a data of ADR05(Address "05") for example, if indicated data is "56", substitute "56" to ADR05. (This is hexadecimal number)
   The same as above, read out the data from address "01".
   For example if data which is read out is ADR01="6C", ADR05="56" above formula becomes;
   R-Y GC 36 = 56+−1.00x(6C−56).
2) Convert the hexadecimal data into decimal number using conversion table. (Shown in Fig.C18) For example, "56" in hexadecimal is "86" in decimal from intersection of 5 and 6.
   Substitute it into the formula.
   Therefore,
   R-Y GC 36 = 86+0.882x(108−86)
   = 86+0.882x(22)
   = 105
3) Convert the result "105" to hexadecimal using conversion table (Fig.C18).
   "105" decimal is "69" in hexadecimal.
   Write the "69" into EEPROM address "03".
   * Set the command to [02].
   * Set the address to [03].
   * Set the data [69].
   * Push the [SET] key.

Calculation for Colour Reproduction

NBR	ITEM	EEPROM ADDRESS	CMD	RESULT OF CALCULATION	FORMULA
(1)	R-Y GC 36	03 (LOW DIGIT)	READ : 04 WRITE: 02		ADR"05" + 0.882 x (ADR"01" - ADR"05")
(2)	R-Y GC 45	02 (LOW DIGIT)	READ : 04 WRITE: 02		ADR"05" + 0.471 x (ADR"01" - ADR"05")
(3)	R-Y GC 28	06 (LOW DIGIT)	READ : 04 WRITE: 02		ADR"05" + 0.412 x (ADR"01" - ADR"05")
(4)	R-Y GC 60	00 (LOW DIGIT)	READ : 04 WRITE: 02		ADR"05" + 1.000 x (ADR"01" - ADR"05")
(5)	R-Y GC 33	04 (LOW DIGIT)	READ : 04 WRITE: 02		ADR"05" + 0.000 x (ADR"01" - ADR"05")
(6)	R-Y MAT 28	16 (LOW DIGIT)	READ : 04 WRITE: 02		ADR"15" + 0.000 x (ADR"11" - ADR"15")
(7)	R-Y MAT 36	13 (LOW DIGIT)	READ : 04 WRITE: 02		ADR"15" - 0.091 x (ADR"11" - ADR"15")
(8)	R-Y MAT 45	12 (LOW DIGIT)	READ : 04 WRITE: 02		ADR"15" - 0.750 x (ADR"11" - ADR"15")
(9)	R-Y MAT 60	10 (LOW DIGIT)	READ : 04 WRITE: 02		ADR"15" + 1.000 x (ADR"11" - ADR"15")
(10)	R-Y MAT 33	14 (LOW DIGIT)	READ : 04 WRITE: 02		ADR"15"
(11)	B-Y GC 28	06 (HIGH DIGIT)	READ : 14 WRITE: 12		ADR"05" + 0.333 x (ADR"01" - ADR"05")
(12)	B-Y GC 36	03 (HIGH DIGIT)	READ : 14 WRITE: 12		ADR"05" + 0.667 x (ADR"01" - ADR"05")
(13)	B-Y GC 45	02 (HIGH DIGIT)	READ : 14 WRITE: 12		ADR"05" + 0.939 x (ADR"01" - ADR"05")
(14)	B-Y GC 60	00 (HIGH DIGIT)	READ : 14 WRITE: 12		ADR"05" + 1.000 x (ADR"01" - ADR"05")
(15)	B-Y GC 33	04 (HIGH DIGIT)	READ : 14 WRITE: 12		ADR"05" - 0.000 x (ADR"01" - ADR"05")
(16)	B-Y MAT 28	16 (HIGH DIGIT)	READ : 14 WRITE: 12		ADR"15" + 0.000 x (ADR"11" - ADR"15")
(17)	B-Y MAT 36	13 (HIGH DIGIT)	READ : 14 WRITE: 12		ADR"15" - 1.750 x (ADR"11" - ADR"15")
(18)	B-Y MAT 45	12 (HIGH DIGIT)	READ : 14 WRITE: 12		ADR"15" - 1.125 x (ADR"11" - ADR"15")
(19)	B-Y MAT 60	10 (HIGH DIGIT)	READ : 14 WRITE: 12		ADR"15" + 1.000 x (ADR"11" - ADR"15")
(20)	B-Y MAT 33	14 (HIGH DIGIT)	READ : 14 WRITE: 12		ADR"15"
(21)	R-Y WB 28	26 (LOW DIGIT)	READ : 04 WRITE: 02		ADR"25" + 0.455 x (ADR"25" - ADR"21")
(22)	R-Y WB 33	24 (LOW DIGIT)	READ : 04 WRITE: 02		ADR"25" - 0.242 x (ADR"25" - ADR"21")
(23)	R-Y WB 36	23 (LOW DIGIT)	READ : 04 WRITE: 02		ADR"25" - 0.485 x (ADR"25" - ADR"21")
(24)	R-Y WB 45	22 (LOW DIGIT)	READ : 04 WRITE: 02		ADR"25" - 1.136 x (ADR"25" - ADR"21")
(25)	R-Y WB 49	29 (LOW DIGIT)	READ : 04 WRITE: 02		ADR"25" - 1.000 x (ADR"25" - ADR"21")
(26)	R-Y-WB 60	20 (LOW DIGIT)	READ : 04 WRITE: 02		ADR"25" - 1.061 x (ADR"25" - ADR"21")
(27)	R-Y WB L-LIM	27 (LOW DIGIT)	READ : 04 WRITE: 02		ADR"25" - 1.061 x (ADR"25" - ADR"21")
(28)	R-Y WB H-LIM	28 (LOW DIGIT)	READ : 04 WRITE: 02		ADR"25" - 1.000 x (ADR"25" - ADR"21")
(29)	B-Y WB 28	26 (HIGH DIGIT)	READ : 14 WRITE: 12		ADR"25" + 0.121 x (ADR"25" - ADR"21")
(30)	B-Y WB 33	24 (HIGH DIGIT)	READ : 14 WRITE: 12		ADR"25" - 0.167 x (ADR"25" - ADR"21")
(31)	B-Y WB 36	23 (HIGH DIGIT)	READ : 14 WRITE: 12		ADR"25" - 0.333 x (ADR"25" - ADR"21")
(32)	B-Y WB 45	22 (HIGH DIGIT)	READ : 14 WRITE: 12		ADR"25" - 0.667 x (ADR"25" - ADR"21")
(33)	B-Y WB 49	29 (HIGH DIGIT)	READ : 14 WRITE: 12		ADR"25" - 1.000 x (ADR"25" - ADR"21")
(34)	B-Y WB 60	20 (HIGH DIGIT)	READ : 14 WRITE: 12		ADR"25" - 1.212 x (ADR"25" - ADR"21")
(35)	B-Y WB L-LIM	27 (HIGH DIGIT)	READ : 14 WRITE: 12		ADR"25" - 1.212 x (ADR"25" - ADR"21")
(36)	B-Y WB H-LIM	28 (HIGH DIGIT)	READ : 14 WRITE: 12		ADR"25" - 1.000 x (ADR"25" - ADR"21")

Fig. C24-1

Calculation for Auto White Balance

NBR	ITEM	EEPROM ADDRESS	CMD	RESULT OF CALCULATION	FORMULA
(1)	BH 28	46 (HIGH DIGIT)	READ : 14 WRITE: 12		ADR"25" + 0.864 x (ADR"25" - ADR"21")
(2)	BH 30	45 (HIGH DIGIT)	READ : 14 WRITE: 12		ADR"25 + 0.864 x (ADR"25" - ADR"21")
(3)	BH 36	43 (HIGH DIGIT)	READ : 14 WRITE: 12		ADR"25 + 0.182 x (ADR"25" - ADR"21")
(4)	BH 45	42 (HIGH DIGIT)	READ : 14 WRITE: 12		ADR"25 - 0.242 x (ADR"25" - ADR"21")
(5)	BH 51	41 (HIGH DIGIT)	READ : 14 WRITE: 12		ADR"25 - 0.788 x (ADR"25" - ADR"21")
(6)	BH 60	40 (HIGH DIGIT)	READ : 14 WRITE: 12		ADR"25 - 1.500 x (ADR"25" - ADR"21")
(7)	BH TR	48 (HIGH DIGIT)	READ : 14 WRITE: 12		ADR"25 + 0.182 x (ADR"25" - ADR"21")
(8)	BH SKY	47 (HIGH DIGIT)	READ : 14 WRITE: 12		ADR"25 - 1.561 x (ADR"25" - ADR"21")
(9)	Baxisth	4A (HIGH DIGIT)	READ : 14 WRITE: 12		ADR"25 - 0.788 x (ADR"25" - ADR"21")
(10)	BL 28	36 (HIGH DIGIT)	READ : 14 WRITE: 12		ADR"25" - 0.455 x (ADR"25" - ADR"21")
(11)	BL 30	35 (HIGH DIGIT)	READ : 14 WRITE: 12		ADR"25" - 0.455 x (ADR"25" - ADR"21")
(12)	BL 36	33 (HIGH DIGIT)	READ : 14 WRITE: 12		ADR"25" - 0.485 x (ADR"25" - ADR"21")
(13)	BL 45	32 (HIGH DIGIT)	READ : 14 WRITE: 12		ADR"25" - 0.788 x (ADR"25" - ADR"21")
(14)	BL 51	31 (HIGH DIGIT)	READ : 14 WRITE: 12		ADR"25" - 1.500 x (ADR"25" - ADR"21")
(15)	BL 60	30 (HIGH DIGIT)	READ : 14 WRITE: 12		ADR"25" - 1.561 x (ADR"25" - ADR"21")
(16)	BL TR	38 (HIGH DIGIT)	READ : 14 WRITE: 12		ADR"25" - 0.788 x (ADR"25" - ADR"21")
(17)	BL SK	37 (HIGH DIGIT)	READ : 14 WRITE: 12		ADR"00"
(18)	RH 28	46 (LOW DIGIT)	READ : 04 WRITE: 02		ADR"25" + 1.152 x (ADR"25" - ADR"21")
(19)	RH 30	45 (LOW DIGIT)	READ : 04 WRITE: 02		ADR"25" + 0.333 x (ADR"25" - ADR"21")
(20)	RH 36	43 (LOW DIGIT)	READ : 04 WRITE: 02		ADR"25" - 0.833 x (ADR"25" - ADR"21")
(21)	RH 45	42 (LOW DIGIT)	READ : 04 WRITE: 02		ADR"25" - 0.833 x (ADR"25" - ADR"21")
(22)	RH 51	41 (LOW DIGIT)	READ : 04 WRITE: 02		ADR"25" - 0.470 x (ADR"25" - ADR"21")
(23)	RH 60	40 (LOW DIGIT)	READ : 04 WRITE: 02		ADR"25" - 0.939 x (ADR"25" - ADR"21")
(24)	RH TR	48 (LOW DIGIT)	READ : 04 WRITE: 02		ADR"25" - 1.348 x (ADR"25" - ADR"21")
(25)	RH SK	47 (LOW DIGIT)	READ : 04 WRITE: 02		ADR"25" - 0.939 x (ADR"25" - ADR"21")
(26)	Rxisth	4A (LOW DIGIT)	READ : 04 WRITE: 02		ADR"25" - 0.833 x (ADR"25" - ADR"21")
(27)	RL 28	36 (LOW DIGIT)	READ : 04 WRITE: 02		ADR"25" + 0.333 x (ADR"25" - ADR"21")
(28)	RL 30	35 (LOW DIGIT)	READ : 04 WRITE: 02		ADR"25" - 0.288 x (ADR"25" - ADR"21")
(29)	RL 36	33 (LOW DIGIT)	READ : 04 WRITE: 02		ADR"25" - 0.833 x (ADR"25" - ADR"21")
(30)	RL 45	32 (LOW DIGIT)	READ : 04 WRITE: 02		ADR"25" - 1.348 x (ADR"25" - ADR"21")
(31)	RL 51	31 (LOW DIGIT)	READ : 04 WRITE: 02		ADR"25" - 1.682 x (ADR"25" - ADR"21")
(32)	RL 60	30 (LOW DIGIT)	READ : 04 WRITE: 02		ADR"25" - 1.742 x (ADR"25" - ADR"21")
(33)	RL TR	38 (LOW DIGIT)	READ : 04 WRITE: 02		ADR"25" - 1.803 x (ADR"25" - ADR"21")
(34)	RL SK	37 (LOW DIGIT)	READ : 04 WRITE: 02		ADR"25" - 1.803 x (ADR"25" - ADR"21")

Fig. C24–2

19. ADDITIONAL FOR HOW TO USE E.V.R.

E.V.R. FIXTURE

Camera Process section uses a memory IC called a E.E.P.R.O.M.(Electrical Erasable Programmable Read Only Memory) that replaces the variable resistor in conventional camera process. In the conventional camera process, each adjustment point was adjusted by turning variable resistors as shown in Fig.C25. In the Movie Camera adjustment voltage is recorded in the EEPROM as 8 bit digital data. The EEPROM supplies the recorded adjustment voltage to the adjustment point as shown in Fig.C26.

The data in the EEPROM can be changed electrically. The E.V.R.(Electric Variable Resistor) has been designed to change the 8 bit data of EEPROM in process circuit. The E.V.R. can also communicate directly with the RAM of the micro processor to change each control voltage. In normal operation the EEPROM would send the voltage data to RAM where the digital data is used to changed the adjustment values in the various circuits. Using the E.V.R. you can change the data stored in the EEPROM easily there by adjusting the camera process section. And the E.V.R. can also send the data to the RAM directly to confirm the adjustment.

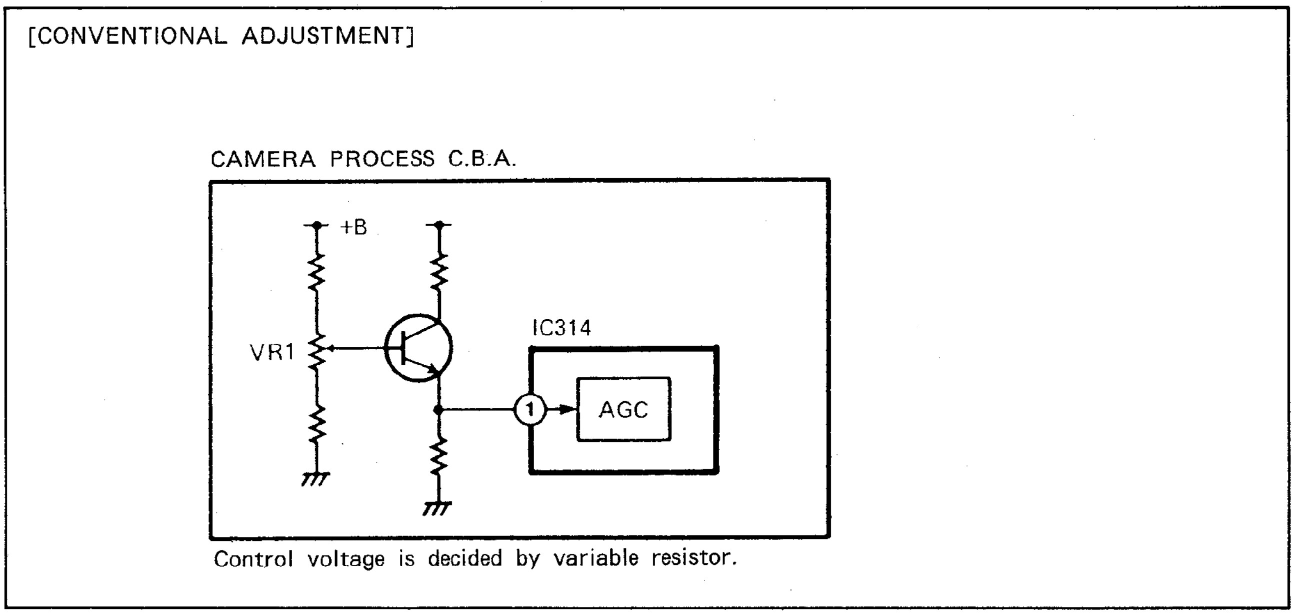

[CONVENTIONAL ADJUSTMENT]
CAMERA PROCESS C.B.A.
+B
VR1
IC314
1
AGC
Control voltage is decided by variable resistor.

Fig. C25

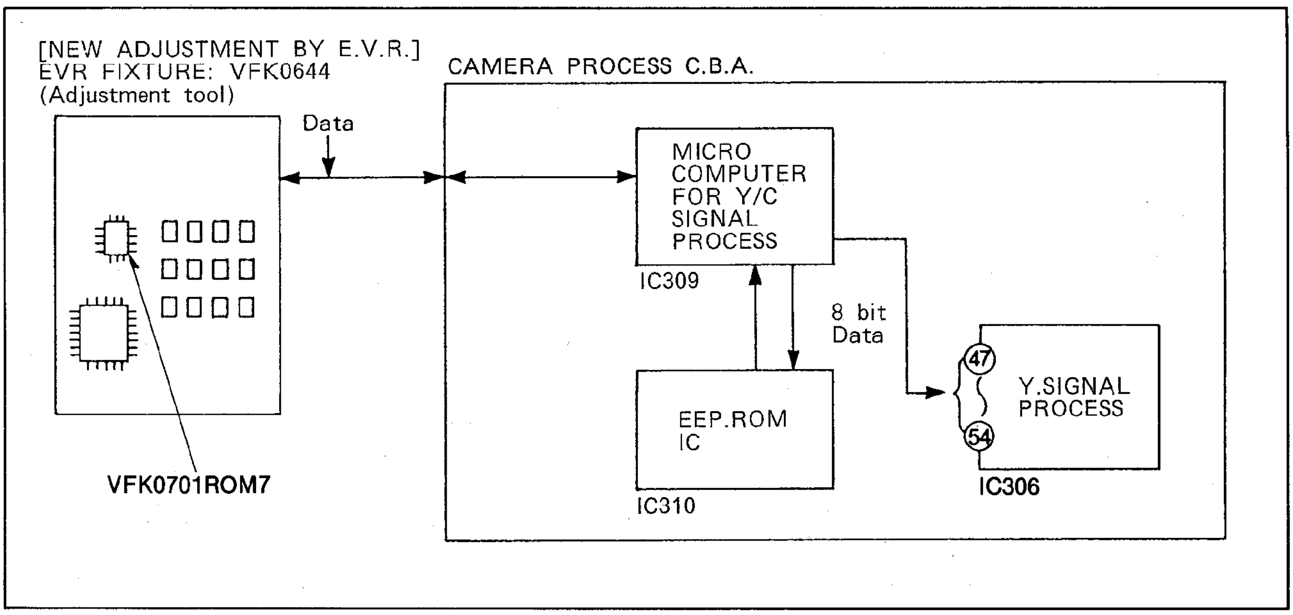
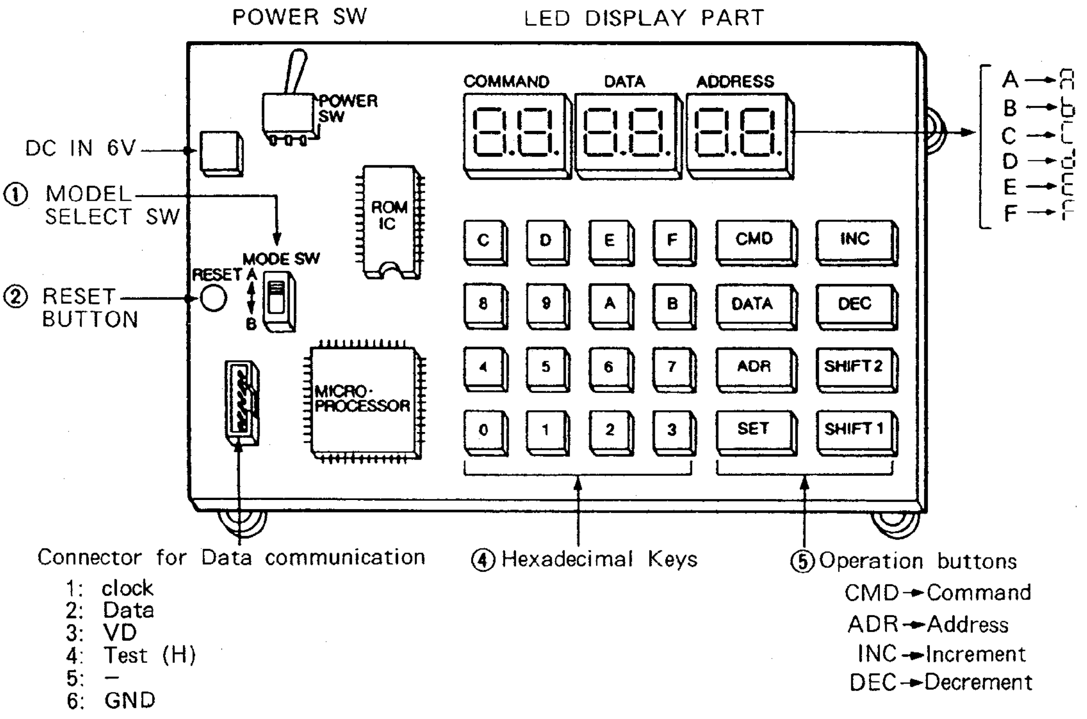

[NEW ADJUSTMENT BY E.V.R.]
EVR FIXTURE: VFK0644
(Adjustment tool)
Data
VFK0701ROM7
CAMERA PROCESS C.B.A.
MICRO COMPUTER FOR Y/C SIGNAL PROCESS
IC309
8 bit Data
EEP.ROM IC
IC310
47
54
Y.SIGNAL PROCESS
IC306

Fig. C26

Name of key


POWER SW
LED DISPLAY PART
POWER SW
COMMAND
DATA
ADDRESS
DC IN 6V
① MODEL SELECT SW
MODE SW
RESET
A
B
② RESET BUTTON
ROM IC
MICRO-PROCESSOR
C
D
E
F
CMD
INC
8
9
A
B
DATA
DEC
4
5
6
7
ADR
SHIFT 2
0
1
2
3
SET
SHIFT 1
A → A
B → b
C → C
D → d
E → E
F → F
Connector for Data communication
1: clock
2: Data
3: VD
4: Test (H)
5: –
6: GND
④ Hexadecimal Keys
⑤ Operation buttons
CMD → Command
ADR → Address
INC → Increment
DEC → Decrement

NO.	NAME	DESCRIPTION
①	MODE SW	MODEL selection switch. In case of this model turn it to A side
②	RESET BUTTON	After Power is on, if operation is not stable, push this SW.
③	ROM IC	ROM IC of which Programing (to operate E.V.R) is memorized in. In the future, to cope with new camcorder servicing, this ROM IC could be replaced to new version.
④	HEXADECIMAL KEYS	Key buttons of 16 pieces (from "O" to "F"). These are used when "COMMAND", "DATA" or "ADDRESS" is set.
⑤	OPERATION BUTTONS	The buttons to operate writing, reading or setting the data.
	CMD: Command button	This is used to decide the which mode (command) between E.V.R and camcorder (for example, data writing or reading) to perform.
	DATA: Data button	For changing Data.
	ADR: Address button	To appoint the EEPROM address or RAM address.
	SET: Set button	To perform the appointed command (for example reading or writing).
	INC: Incliment DEC: Decliment	Increase or decrease the data one by one (+1, −1)
	SHIFT 1 button	To carry out macro operation (while pushing with hexadecimal keys) SHIFT 1 button is used. (Macro operations will be described later)
	SHIFT 2 button	To carry out macro operation(while pushing with hexadecimal keys) SHIFT 2 button is used (Macro operations will be described later.)

Fig. C27

(Before Adjusting How to use the E.V.R. Fixture)

1) How to read out the data which is being stored in EEPROM.
Connect the E.V.R. Fixture as shown in Fig.C3.

Result:
Adjustment value of AGC has been set for "6A". It is advisable to read out the data like this and make a note of it before writing the new data so that if a error should occur you can rewrite original data.

Item		Proceduring Order	Buttons to be Pushed	LED Indication
For Example, Reading out the data of AGC Adjustment comunication from camcorder to E.V.R. EEPROM→E.V.R.	1	Set the Command mode to "14", "14" is read out command. (Refer to command description)	CMD 1 4	LED lights up 14/80 00 Command setting
	2	Set the Address of EEPROM	ADR 6 A	14 80 6A. Address setting of EEPROM LED lights up
	3	Read out the data	SET Push this for 2 seconds	14 09.6A data for AGC for example LED lights up

Fig. C28

2) Writing the New Data.

(1) Search and Write Procedure
(For example : AGC Adjustment).

Confirmation:
Confirm whether data is written correctly or not.

Procedure:
1. Set the Command to [04].
2. Set the Address to [41].
3. Push the [SET] button.
4. The number which is indicated on DATA LED is a data which has been written.

Item		Proceduring Order	Buttons to be Pushed	LED Indication
For Example, writing the AGC adjustment data. E.V.R.→EEPROM	1	Set the command to "18".	CMD 1 8	Command for search mode.
	2	Set the Address of RAM to "BC" E.V.R.→RAM (communication from E.V.R. to RAM)	ADR B C	LED lights up. 18/80 6C
	3	Adjustment Push "DEC" or "INC" button so that AGC at B302-20 becomes 240	Search with INC or DEC	18 91 6C. LED lights up
	4	Change the command to "12"	CMD 1 2	LED lights up 12/91 6C Command for Direct Writing

Fig. C29

Item	Proceduring Order		Buttons to be Pushed	LED Indication
	5	Set the address of EEPROM to "6A"	[ADR] [4] [F]	address of EEPROM 02 9 1 6 A LED lights up
	6	Do not change the data after adjustment	[DATA] [9] [1]	02 9 1 6 A LED lights up
	7	Write the data	[SET] Push this for 2sec.	LED disappear 02 9 1 6 A

Fig. C30

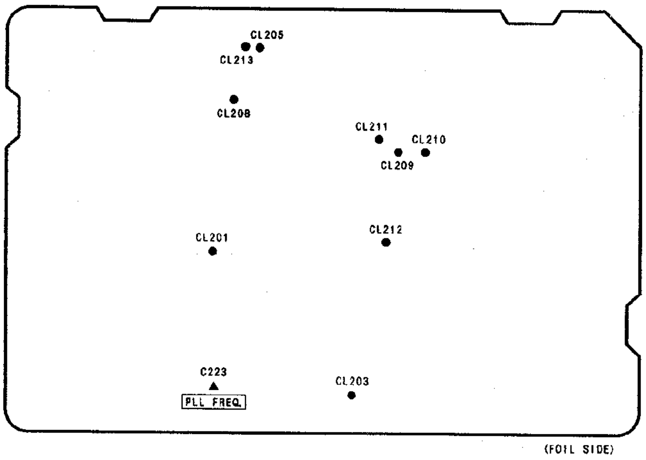
3) Direct Writing Procedure

Item	Proceduring Order		Buttons to be Pushed	LED Indication
For Example, writing the AGC adjustment data	1 2 3	**Searching the best Point.** **same as (1)**	**same as (2)**	**same as (2)**
	4	Change the command to "01"	[CMD] [1] [2]	LED lights up 12/00 2 1 Command for Direct writing
	5	Set the address of EEPROM to "6A"	[ADR] [6] [A]	address of EEPROM 12 00 6 A LED lights up
	6	Set the data of best point "91"	[DATA] [9] [1]	12 9 1 6 A LED lights up
	7	**Write the data**	[SET] **Push this for 2sec.**	LED disappear. 12 9 1 6 A

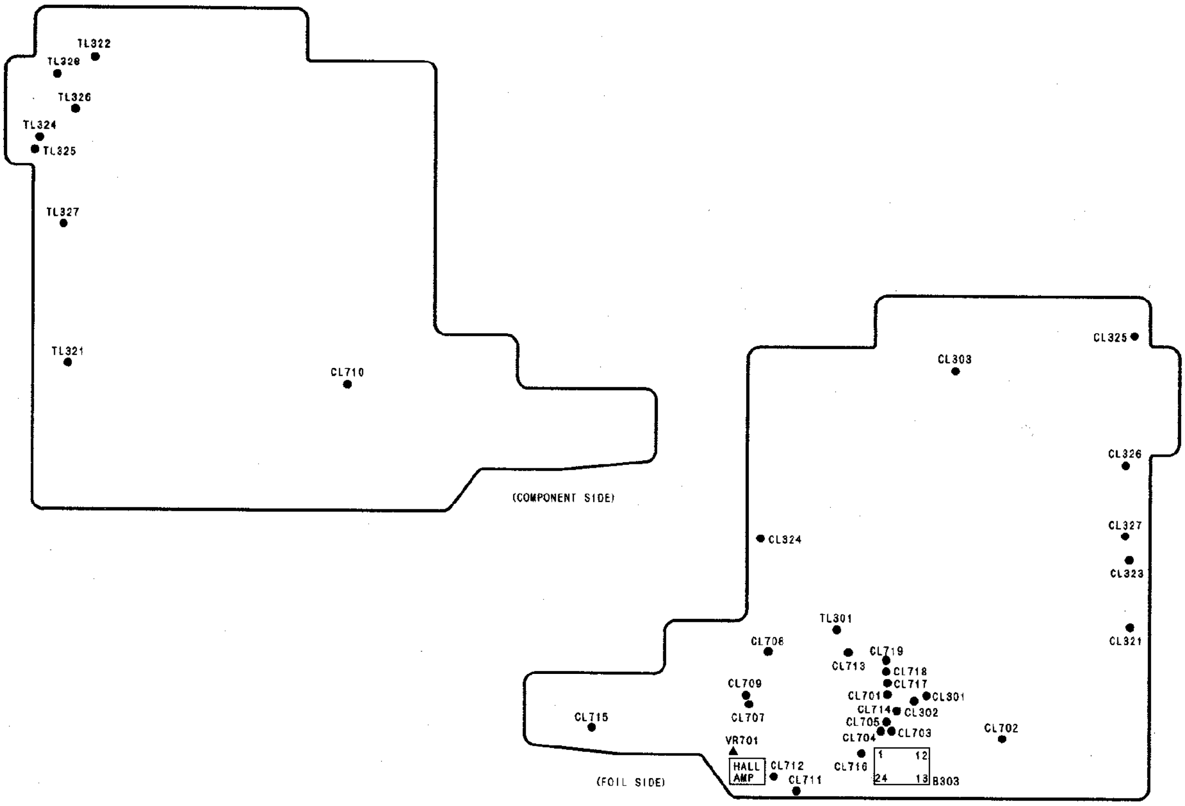
Fig. C31

LOCATION OF TEST POINTS AND CONTROLS (1)

CCD DRIVE C.B.A.

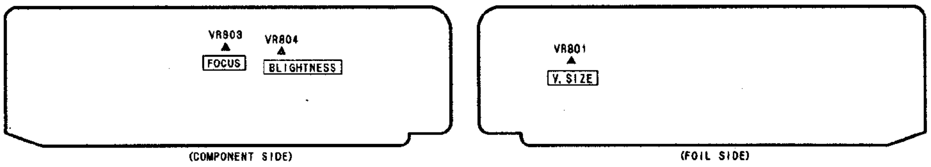

CL205
CL213
CL208
CL211
CL210
CL209
CL201
CL212
C223
PLL FREQ.
CL203
(FOIL SIDE)

PROCESS & AF C.B.A.

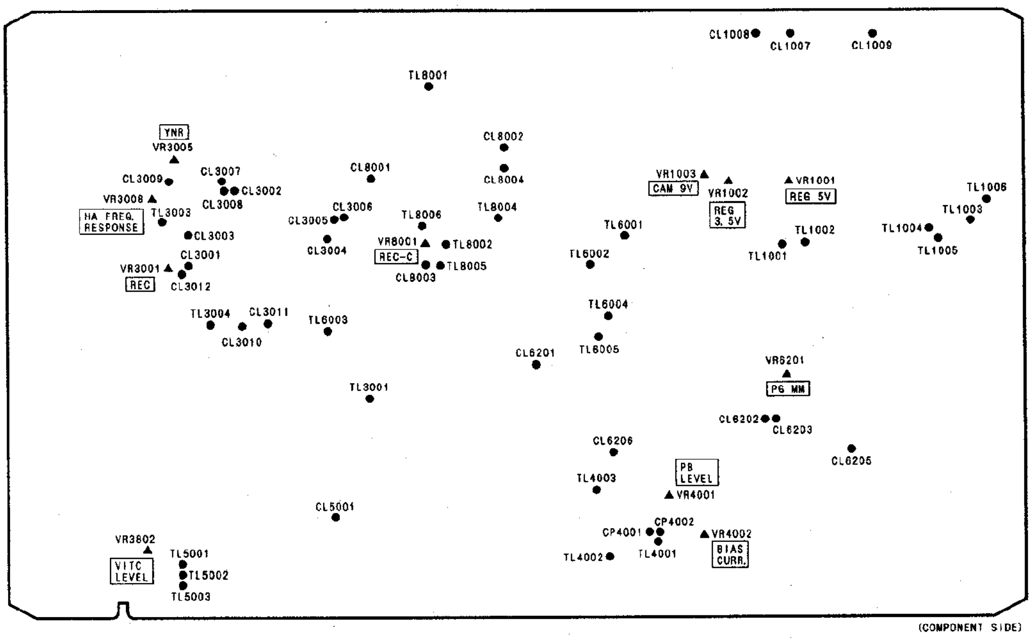

TL322
TL328
TL326
TL324
TL325
TL327
TL321
CL710
(COMPONENT SIDE)
CL325
CL303
CL326
CL327
CL323
CL324
CL321
TL301
CL706
CL719
CL713
CL718
CL717
CL709
CL701
CL301
CL714
CL302
CL707
CL705
CL715
CL704
CL703
CL702
VR701
HALL AMP
CL712
CL716
1
12
24
13
B303
CL711
(FOIL SIDE)

LOCATION OF TEST POINTS AND CONTROLS (2)

E.V.F. C.B.A.


VR803
FOCUS
VR804
BLIGHTNESS
(COMPONENT SIDE)
VR801
V. SIZE
(FOIL SIDE)

MAIN C.B.A.


CL1008
CL1007
CL1009
TL8001
YNR
VR3005
CL8002
CL3009
CL3007
CL3002
CL8001
CL8004
VR1003
CAM 9V
VR1002
REG 3. 5V
VR1001
REG 5V
TL1006
VR3008
HA FREQ. RESPONSE
TL3003
CL3008
CL3006
CL3005
TL8006
TL8004
TL6001
TL1003
TL1004
TL1002
TL1001
TL1005
CL3003
CL3004
VR8001
REC-C
TL8002
TL8005
CL8003
TL6002
CL3001
VR3001
REC
CL3012
TL3004
CL3011
CL3010
TL6003
TL6004
TL6005
CL6201
VR6201
PG MM
TL3001
CL6202
CL6203
CL6206
CL6205
TL4003
PB LEVEL
VR4001
CL5001
CP4002
CP4001
VR4002
BIAS CURR.
TL4002
TL4001
VR3802
VITC LEVEL
TL5001
TL5002
TL5003
(COMPONENT SIDE)

2-5-2. ELECTRICAL ADJUSTMENT FOR E.V.F. SECTION

The following adjustment are for Electric Viewfinder.

(1) Connect the Viewfinder plug to the E.V.F. connector on the unit.
(2) The camera circuit must be completely aligned before viewfinder adjustments are made.

1. CENTERING ADJUSTMENT

(1) Aim the camera at the registration chart.
(2) Adjust the deflection Yole centering magnets turning them so that the picture on monitor TV is centered.

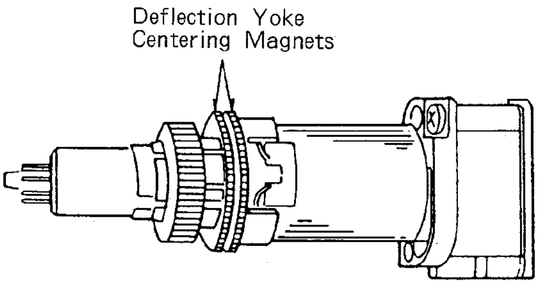


Fig. E1

2. FOCUS ADJUSTMENT

TP	**ADJ.**	**LENS CAP**	**CHART**
	VR803	NO	BALL CHART
M. EQ.		**SPEC.**	
VIEWFINDER		BEST RESOLUTION	

NOTE VR803: E.V.F. C.B.A.
1) Aim the connect at Ball chart.
2) Adjust the VR803 for best resolution in viewfinder.

3. V.SIZE ADJUSTMENT

TP	**ADJ.**	**LENS CAP**	**CHART**
	VR801	NO	GRAY SCALE CHART
M. EQ.		**SPEC.**	
VIEWFINDER		VERTICAL SIZE IS FIXED	

NOTE:
VR801 : E.V.F. C.B.A.

(1) Aim the camera at the gray scale chart.
(2) Adjust the vertical size(VR801) so that the Vertical size is correct and the picture does not roll as shown in Fig.E2.

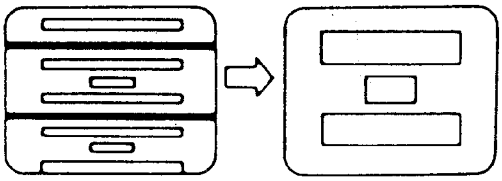


Fig. E2

4. BRIGHTNESS ADJUSTMENT

TP	**ADJ.**	**LENS CAP**	**CHART**
	VR804	NO	GRAY SCALE CHART
M. EQ.		**SPEC.**	
VIEWFINDER		NATURAL GRADATION	

NOTE:
VR804 : E.V.F. C.B.A.

(1) Aim the camera at gray scale chart.
(2) Adjust the brightness control(VR804) so that the black and white bars in the E.V.F. screen are the same as they are in the monitor TV screen.

2-5-3. ELECTRICAL ADJUSTMENT FOR VTR SECTION

TEST EQUIPMENT AND TOOLS

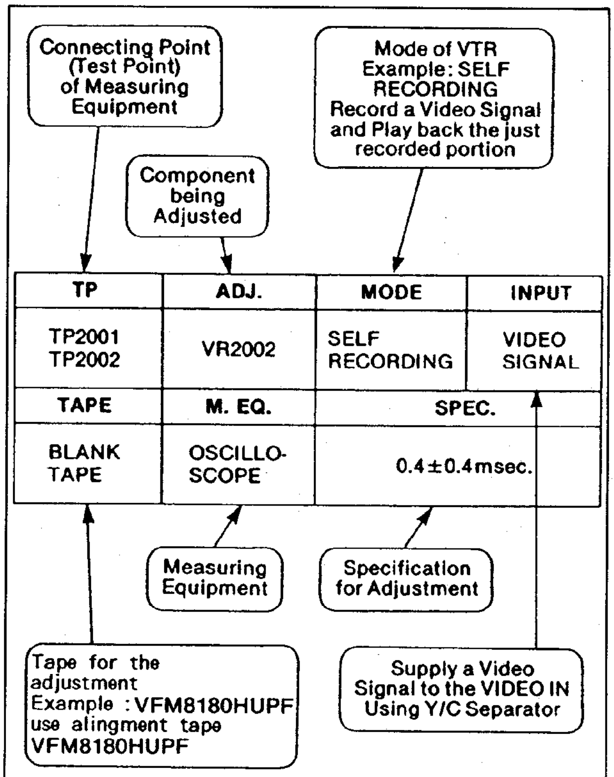
The following equipment is required for adjustment of the VTR section of VHS–Movie.

1. VTVM (Vacuum Tube Volt Meter)
   DVM (Digital Volt Meter)
   Voltage Range: 0.01–50V)
2. Dual Trace Oscilloscope
   Voltage Range: 0.06–50V/div
   Frequency Range: 0–50MHz
   Probe: 10:1 or 1:1
3. Frequency counter
   Frequency Range: 0–10MHz
4. Signal Generator (Sinewave)
   Frequency Range: 0–10MHz
5. Video Sweep Generator
   Frequency Range: 0–10MHz
6. Colour Monitor TV
7. Plastic Tip Driver
8. VHS–Movie. Alignment Tape (VFJ8125H3F)
9. VHS–Movie. Blank Tape
10. Pattern Generator
11. Vectorscope
12. DC Power Supply

PREPARATION

1. Remove the casing panels.
   (Refer to the disassembly method)
2. Connect the extension cable if necessary.
   VFK0823

HOW TO READ THE ADJUSTMENT PROCEDURES


Connecting Point (Test Point) of Measuring Equipment
Component being Adjusted
Mode of VTR Example: SELF RECORDING Record a Video Signal and Play back the just recorded portion
Measuring Equipment
Specification for Adjustment
Tape for the adjustment Example : VFM8180HUPF use alingment tape VFM8180HUPF
Supply a Video Signal to the VIDEO IN Using Y/C Separator

TP	ADJ.	MODE	INPUT
TP2001 TP2002	VR2002	SELF RECORDING	VIDEO SIGNAL
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	OSCILLO-SCOPE	0.4±0.4msec.	

Note: If ☒ appears in any block, this means it is not used or not important.

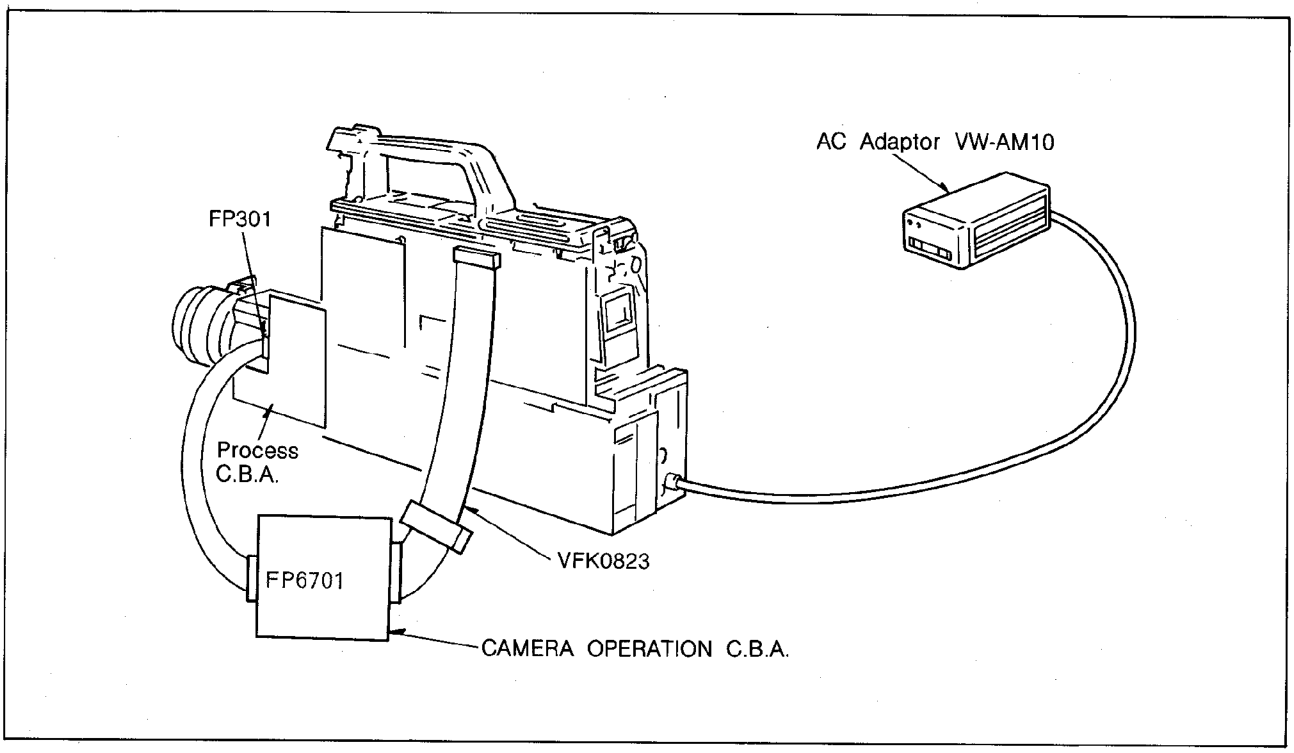

AC Adaptor VW-AM10
FP301
Process C.B.A.
FP6701
VFK0823
CAMERA OPERATION C.B.A.

Fig. V1

TRIGGERING THE OSCILLOSCOPE

To trigger the Oscilloscope, the following test point is used.

H. rate : TP (video output)
V. rate : TP6201 (Head Switching signal)

POWER SECTION

1. REG. 5V ADJUSTMENT

Purpose:
To properly calibrate the 5V voltage to 4.87 DC+−0.025V.

Symptom of Misadjustment:
All circuits in the unit will not operate properly.

TP	ADJ.	MODE	INPUT
TL1001 (HOT) TL1006 (GND)	VR1001	VHS CAMERA RECORDING (EIS ON)	
TAPE	**M. EQ.**	**SPEC.**	
VHS BLANK TAPE	D.V.M.	4.87+−0.025V	

Note:
Sensor, process, and camera operation C.B.A. are connect to the main C.B.A.

(1) Connect the D.V.M. To TL1001(HOT) and TL1006 (GND) Adjust the VR1001 so that D.V.M. is 4.87+−0.025V.

2. CAMERA 3.5V ADJUSTMENT

Purpose:
To properly calibrate the voltage to 3.51V DC +−0.025V.

Symptom of Misadjustment:
All circuits in N Unit will not operate properly.

TP	ADJ.	MODE	INPUT
TL1002 (HOT) TL1006 (GND)	VR1002	VHS CAMERA RECORDING (EIS ON)	
TAPE	**M. EQ.**	**SPEC.**	
VHS BLANK TAPE	D.V.M.	3.51+−0.025V	

Note:
Sensor, process, and camera operation C.B.A. are connect to the main C.B.A.
Turn the power sw on and then set EIS system to the ON position.

(1) Connect the D.V.M. to the TL1002(HOT) and TL1006(GND) Adjust the VR1002 so that D.V.M. is 3.51+−0.025V.

3. CAMERA 9V REGULATOR

TP	ADJ.	MODE	INPUT
TL1003 (HOT) TL1006 (GND)	VR1003	VHS CAMERA RECORDING (EIS ON)	
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	D.V.M.	8.70+0.05V −0.05V	

Note:
Eis system must be set to the ON position.

(1) Connect the D.V.M. To TL1003(HOT) and TL1006 (GND) Adjust the VR1003 so that D.V.M. is 8.70+0.05V,−0.05V.

SERVO SECTION

4. PG SHIFTER ADJUSTMENT

Purpose:
Determine the Head Switching point during play−back.

Symptom of Misadjustment:
May cause Head Switching Noise and/or Vertical jitter in the picture.

TP	ADJ.	MODE	INPUT
B6001 ⑥ (CKJ6) VIDEO OUT	VR6201	PLAY	
TAPE	**M. EQ.**	**SPEC.**	
ALIGNMENT TAPE (VFJ8125H3F)	OSCILLO-SCOPE	6.5H±0.5H	

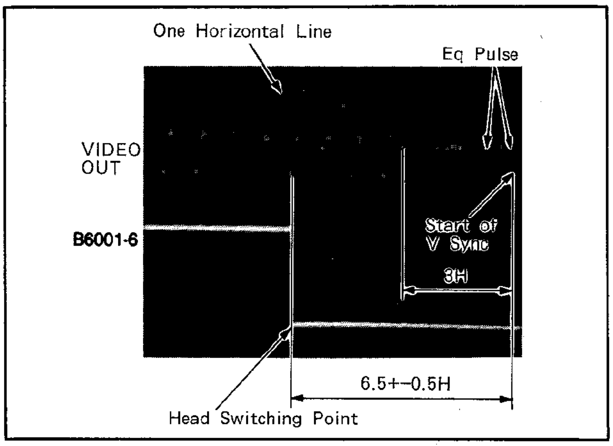


Fig. V2

LUMINANCE & CHROMINANCE SECTION

5. RECORDING CURRENT ADJUSTMENT REC CHROMA LEVEL ADJUSTMENT

Purpose:
Set the optimum Record Chroma Level.

Symptom of Misadjustment:
If the Record Chroma Level is too high, Beats may be seen in the picture. If the Level is too low, Picture will be Black and White.

TP	ADJ.	MODE	INPUT
TL5001 (HOT) TL5002 (GND)	VR8001	VHS REC/PLAY	COLOUR BAR
TAPE	**M. EQ.**	**SPEC.**	
VHS BLANK TAPE	OSCILLO- SCOPE	14+−2mVp-p	

Note 1: Cover the Lens withe cap.

Note 2:
Minimize the luminance recording current by turning VR3001 before this adjustment.

1. Connect the oscilloscope to TL5001(HOT) and TL5002(GND).
2. Aim the camera at colour bar.
3. Make recording with SP mode.
4. Eliminate luminance signal by turning off.
5. Adjust the VR8001 so that chroma level is 14+−2mVp−p.

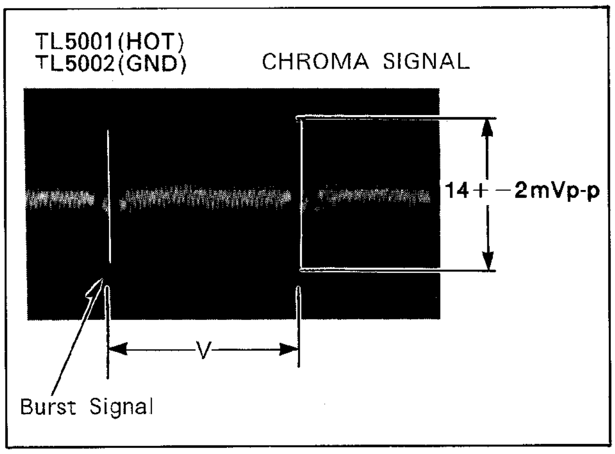


Fig. V3

6. LUMINANCE RECORDING CURRENT ADJUSTMENT

Purpose:
Set the optimum Recording Luminance Level.

Symptom of Misadjustment:
If the Record Luminance Level is too high, video may overload.
If the Level is too low, the S/N Ratio deteriorates.

TP	ADJ.	MODE	INPUT
TL5001 (HOT) TL5002 (GND)	VR3001	VHS REC/PLAY	DARK PICTURE
TAPE	**M. EQ.**	**SPEC.**	
VHS BLANK TAPE	OSCILLO- SCOPE	120+−5mVp−p	

Note: Cover the Lesn with cap.

1. Connect the oscilloscope to TL5001(HOT) and TL5002(GND).
2. Aim the camera at colour bar.
3. Make recording with SP mode.
4. Adjust the VR3001 so that luminance level is 120+−5mVp−p.

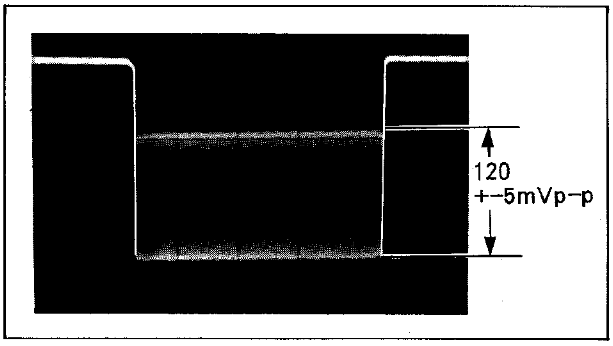


Fig. V4

7. YNR ADJUSTMENT

Purpose:
Improve the overall S/N Ratio especially in the Low Frequency component.

Symptom of Misadjustment:
The S/N Ratio is low.

TP	ADJ.	MODE	CHART
TL3004	VR3005	PLAY	COLOUR BAR
TAPE	**M. EQ.**	**SPEC.**	
ALIGNMENT TAPE VFJ8125H3F	OSCILLO- SCOPE	SIGNAL IS MINIMIZED (LESS THAN 50mV)	

1. Play Back the Alignment tape.
2. Connect the Video output to oscilloscope.
3. Adjust VR3005 so that signal is minimized.

8. HEAD AMP FREQUENCY RESPONSE ADJUSTMENT

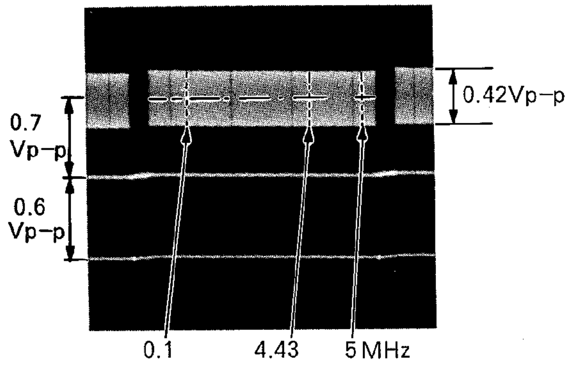
Purpose:
To improve Video Frequency Response Level.

Symptom of Misadjustment:
Video Frequency Response deteriorates.
Picture is noisy.

TP	ADJ.	MODE	INPUT
VIDEO OUT	VR3008	SELF RECORDING	VIDEO SWEEP SIGNAL
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	VIDEO SWEEP/ OSCILLO-SCOPE	A=0dB+-1dB (89~112%)	

Note:
Process C.B.A. must be remove.

1. Set the sweep generator output as shown below.



CONDITIONS : 1. BURST SIGNAL OFF
2. 75ohm TERMINATED

Fig. V5

2. Supply sweep signal to C3060.
3. Record the signal for ten minutes.
4. Play back the recorded signal.
5. Adjust VR3008 so that the level is within the 2MHz spec. as shown below.

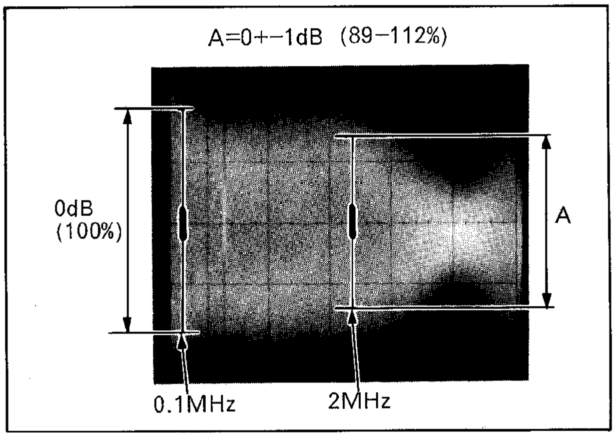


Fig. V6

AUDIO SECTION

9. AUDIO BIAS CURRENT ADJUSTMENT

TP	ADJ.	MODE	INPUT
TL4001 (HOT) TL4002 (GND)	VR4002	REC	disconnect P4001
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	oscilloscope (V.T.V.M.)	7.6+-0.3mVp-p (2.7mVrms+-0.1mVrms)	

Note:
Connector(P4001) must be disconnected.

10. AUDIO PLAYBACK LEVEL ADJUSTMENT

TP	ADJ.	MODE	INPUT
LINE OUT	VR4001	VHS REC/PB	1kHz Audio 56.5±33mVp-p (−34±0.5dB) CKR1 (P4001 ③) IN CKR2 (P4001 ②) GND
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	SIGNAL GENERATOR/ OSCILLO-SCOPE (V.T.V.M)	1.1+−0.1Vp−p (−8+−0.5dB)	

Note:
Audio bias current adjustment must be completed before this adjustment.

1. Supply the audio signal (1KHz/−34dB sine−wave) to audio circuit through the test point. (CKR1,CKR2)
2. Audio VR4001 so that the level is PB Level 1.1+−0.1Vp−p (−8dB+−0.5dB).

11. VITC SIGNAL LEVEL ADJUSTMENT

TP	ADJ.	MODE	INPUT
VIDEO OUT	VR3802	VHS SELF RECORDING	GRAY SCALE CHART
TAPE	**M. EQ.**	**SPEC.**	
╳	VITC GENERATOR/ OSCILLO-SCOPE	V/S 1.8+−0.07 (540+−20mVp-p)	

1. Aim the Camera at Gray Scale Chart.
2. Set the unit to VHS−Movie. Mode and set to recording mode.
3. Adjust the VR3802 so that ratio of V and S is 1.8+−0.07 as shown below.

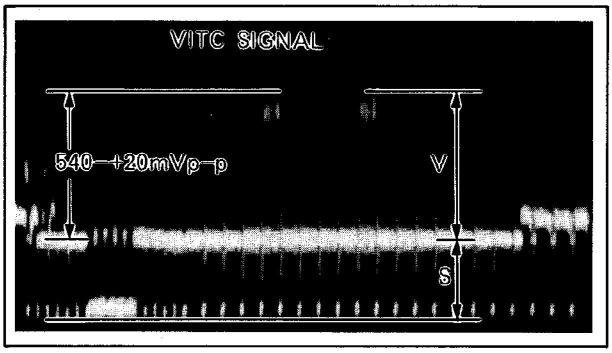
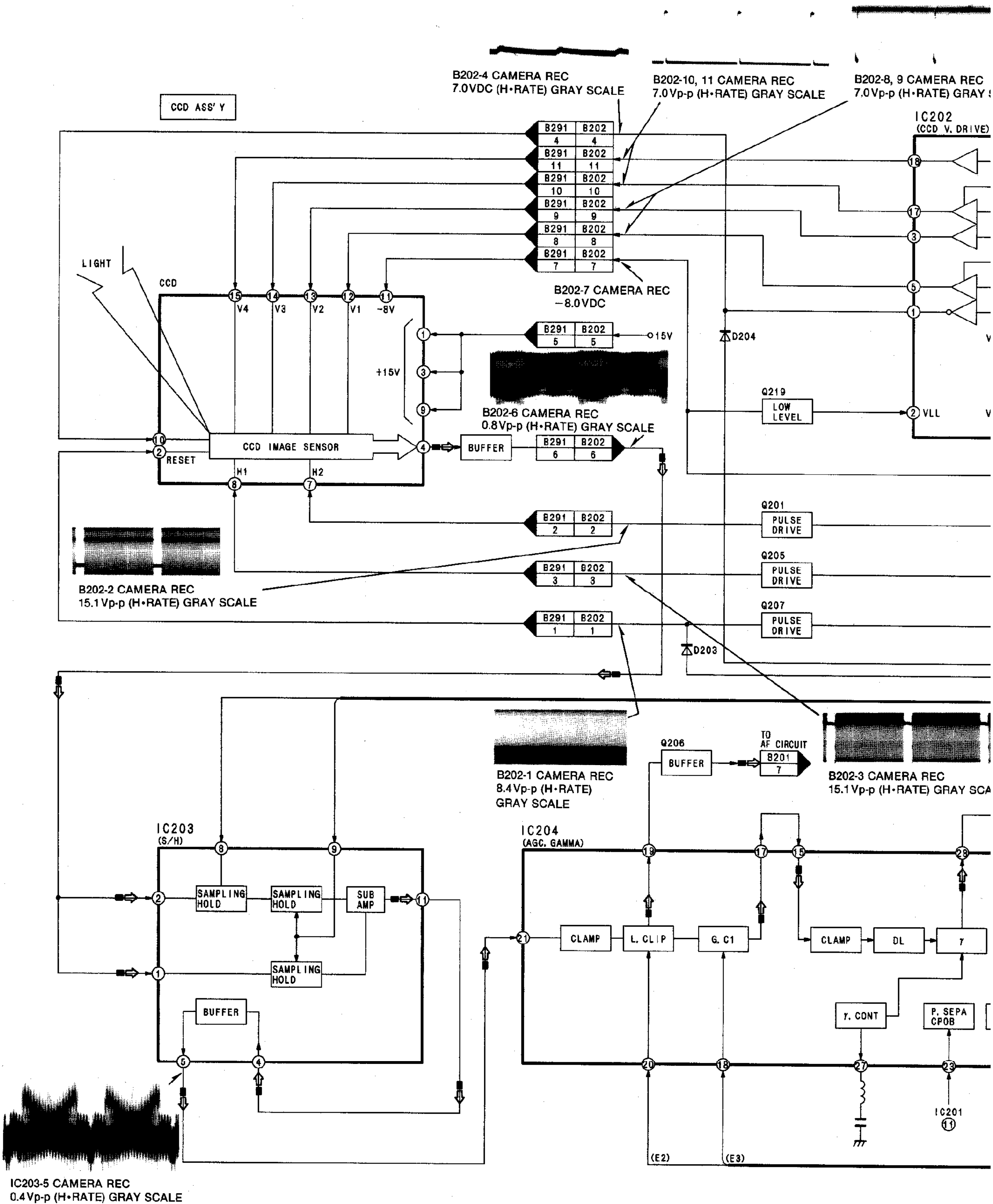


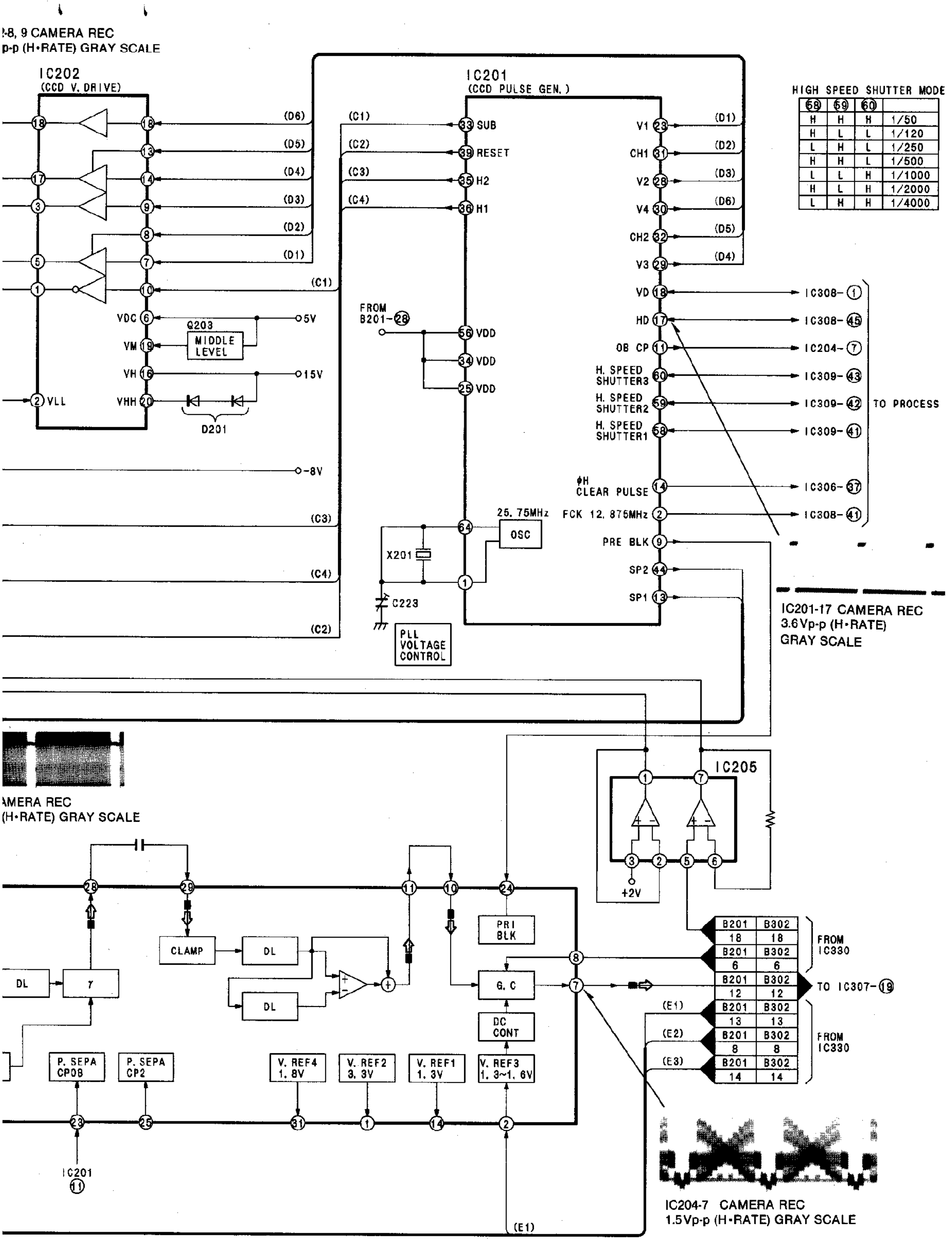
Fig. V7

SECTION 3
BLOCK DIAGRAM & SCHEMATIC DIAGRAMS
3-1. CCD DRIVE BLOCK DIAGRAM



B202-4 CAMERA REC
7.0VDC (H•RATE) GRAY SCALE
B202-10, 11 CAMERA REC
7.0Vp-p (H•RATE) GRAY SCALE
B202-8, 9 CAMERA REC
7.0Vp-p (H•RATE) GRAY
CCD ASS'Y
IC202
(CCD V. DRIVE)
B291
B202
LIGHT
CCD
V4
V3
V2
V1
-8V
+15V
15V
B202-7 CAMERA REC
−8.0VDC
D204
B202-6 CAMERA REC
0.8Vp-p (H•RATE) GRAY SCALE
Q219
LOW LEVEL
VLL
CCD IMAGE SENSOR
RESET
BUFFER
H1
H2
Q201
PULSE DRIVE
Q205
PULSE DRIVE
Q207
PULSE DRIVE
B202-2 CAMERA REC
15.1Vp-p (H•RATE) GRAY SCALE
D203
B202-1 CAMERA REC
8.4Vp-p (H•RATE)
GRAY SCALE
Q206
BUFFER
TO AF CIRCUIT
B201
B202-3 CAMERA REC
15.1Vp-p (H•RATE) GRAY SCA
IC203
(S/H)
SAMPLING HOLD
SUB AMP
BUFFER
IC204
(AGC, GAMMA)
CLAMP
L. CLIP
G. C1
DL
γ
γ. CONT
P. SEPA CPOB
IC201
(E2)
(E3)
IC203-5 CAMERA REC
0.4Vp-p (H•RATE) GRAY SCALE

PRE VIDEO SIGNAL



HIGH SPEED SHUTTER MODE

⑱58	59	60	
H	H	H	1/50
H	L	L	1/120
L	H	L	1/250
H	H	L	1/500
L	L	H	1/1000
H	L	H	1/2000
L	H	H	1/4000

:8, 9 CAMERA REC
p-p (H•RATE) GRAY SCALE

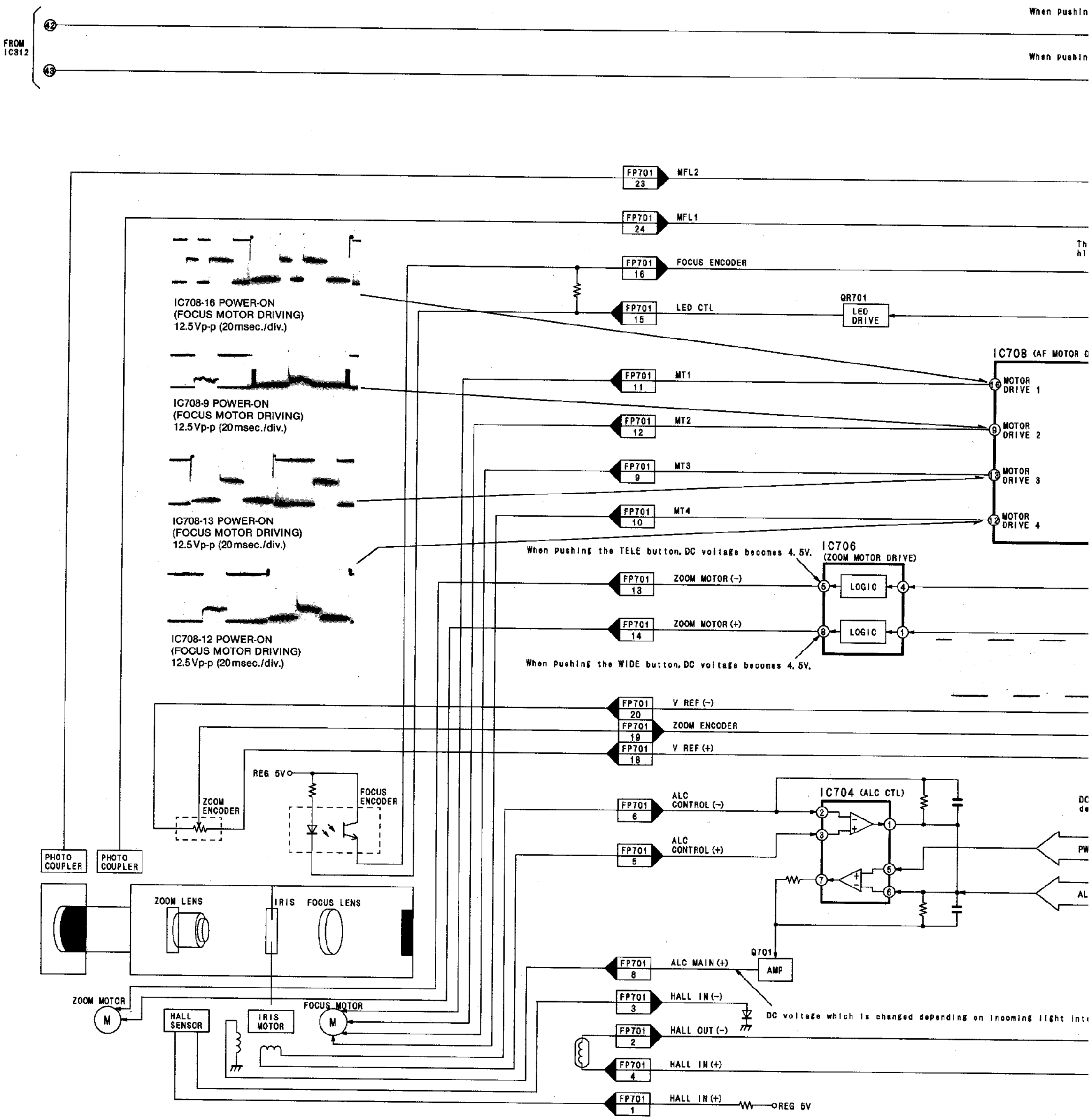
IC201-17 CAMERA REC
3.6Vp-p (H•RATE)
GRAY SCALE

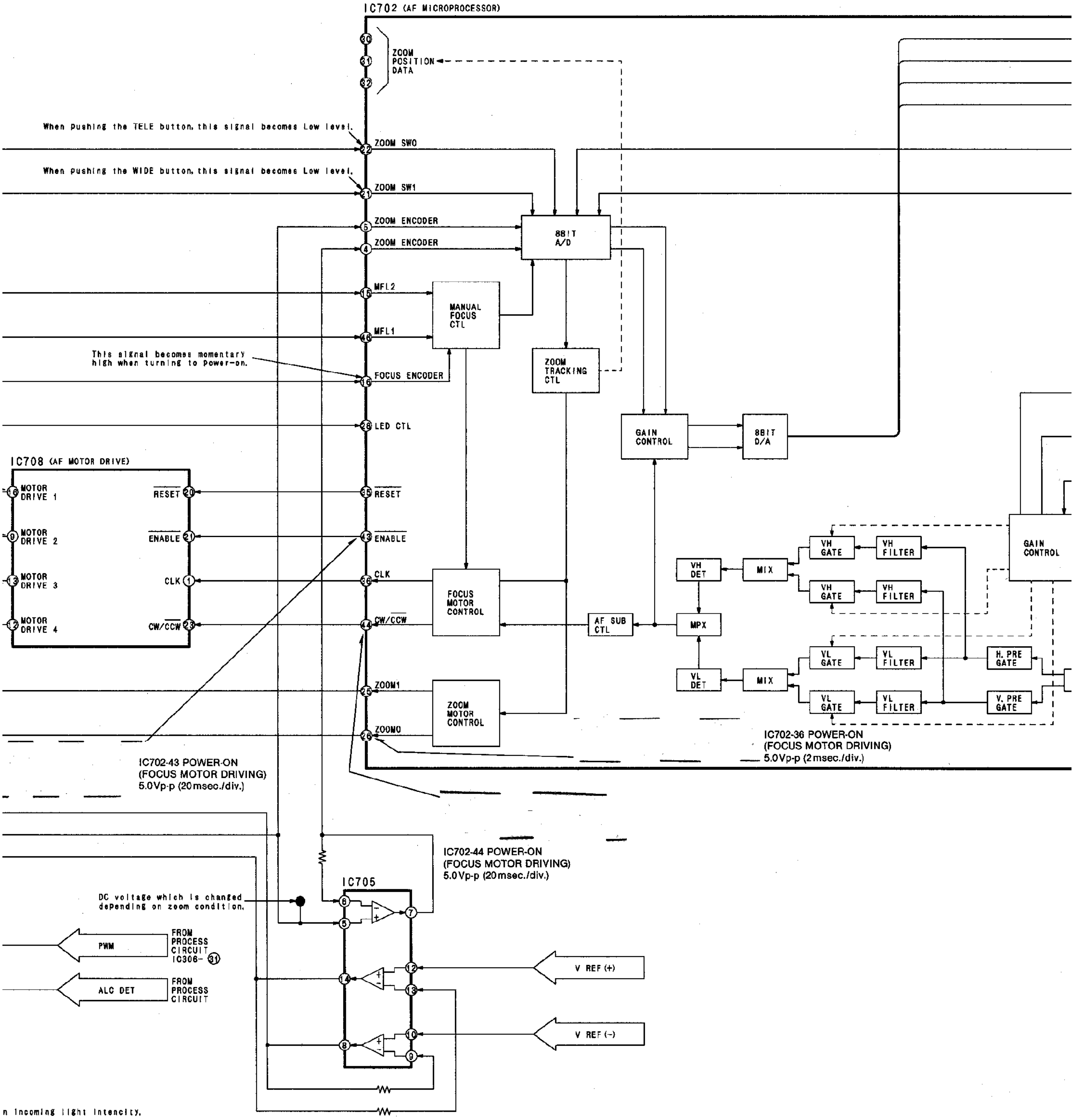
AMERA REC
(H•RATE) GRAY SCALE

IC204-7 CAMERA REC
1.5Vp-p (H•RATE) GRAY SCALE

IC202
(CCD V. DRIVE)
IC201
(CCD PULSE GEN.)
SUB
RESET
H2
H1
V1
CH1
V2
V4
CH2
V3
VD
HD
OB CP
H. SPEED SHUTTER3
H. SPEED SHUTTER2
H. SPEED SHUTTER1
ϕH CLEAR PULSE
FCK 12.875MHz
PRE BLK
SP2
SP1
VDD
FROM B201-㉘
25.75MHz
OSC
X201
C223
PLL VOLTAGE CONTROL
(D1)
(D2)
(D3)
(D4)
(D5)
(D6)
(C1)
(C2)
(C3)
(C4)
VDC
VM
VH
VHH
VLL
Q203
MIDDLE LEVEL
D201
5V
15V
-8V
IC308-①
IC308-㊺
IC204-⑦
IC309-㊸
IC309-㊷
IC309-㊶
IC306-㊲
IC308-㊶
TO PROCESS
IC205
+2V
CLAMP
DL
γ
PRI BLK
G. C
DC CONT
P. SEPA CPOB
P. SEPA CP2
V. REF4 1.8V
V. REF2 3.3V
V. REF1 1.3V
V. REF3 1.3~1.6V
IC201 ⑪
(E1)
(E2)
(E3)
B201
B302
FROM IC330
TO IC307-⑲

3-2. AUTO FOCUS BLOCK DIAGRAM


FROM IC312
42
43
When pushin
When pushin
FP701 23
MFL2
FP701 24
MFL1
Th
hi
FP701 16
FOCUS ENCODER
FP701 15
LED CTL
QR701
LED DRIVE
IC708-16 POWER-ON
(FOCUS MOTOR DRIVING)
12.5Vp-p (20msec./div.)
IC708-9 POWER-ON
(FOCUS MOTOR DRIVING)
12.5Vp-p (20msec./div.)
IC708-13 POWER-ON
(FOCUS MOTOR DRIVING)
12.5Vp-p (20msec./div.)
IC708-12 POWER-ON
(FOCUS MOTOR DRIVING)
12.5Vp-p (20msec./div.)
IC708 (AF MOTOR D
FP701 11
MT1
16 MOTOR DRIVE 1
FP701 12
MT2
9 MOTOR DRIVE 2
FP701 9
MT3
13 MOTOR DRIVE 3
FP701 10
MT4
12 MOTOR DRIVE 4
When pushing the TELE button, DC voltage becomes 4.5V.
IC706 (ZOOM MOTOR DRIVE)
FP701 13
ZOOM MOTOR (−)
5 LOGIC 4
FP701 14
ZOOM MOTOR (+)
8 LOGIC 1
When pushing the WIDE button, DC voltage becomes 4.5V.
FP701 20
V REF (−)
FP701 19
ZOOM ENCODER
FP701 18
V REF (+)
REG 5V
ZOOM ENCODER
FOCUS ENCODER
FP701 6
ALC CONTROL (−)
FP701 5
ALC CONTROL (+)
IC704 (ALC CTL)
2
3
1
5
6
7
DC de
PW
AL
PHOTO COUPLER
PHOTO COUPLER
ZOOM LENS
IRIS
FOCUS LENS
Q701
AMP
FP701 8
ALC MAIN (+)
ZOOM MOTOR
M
HALL SENSOR
IRIS MOTOR
FOCUS MOTOR
M
FP701 3
HALL IN (−)
DC voltage which is changed depending on incoming light inte
FP701 2
HALL OUT (−)
FP701 4
HALL IN (+)
FP701 1
HALL IN (+)
REG 5V


IC702 (AF MICROPROCESSOR)
30
31
32
ZOOM POSITION DATA
22 ZOOM SW0
21 ZOOM SW1
5 ZOOM ENCODER
4 ZOOM ENCODER
15 MFL2
46 MFL1
16 FOCUS ENCODER
28 LED CTL
35 RESET
43 ENABLE
36 CLK
44 CW/CCW
25 ZOOM1
26 ZOOM0
8BIT A/D
MANUAL FOCUS CTL
ZOOM TRACKING CTL
GAIN CONTROL
8BIT D/A
FOCUS MOTOR CONTROL
ZOOM MOTOR CONTROL
AF SUB CTL
MPX
VH DET
VL DET
MIX
MIX
VH GATE
VH GATE
VH FILTER
VH FILTER
VL GATE
VL GATE
VL FILTER
VL FILTER
H. PRE GATE
V. PRE GATE
GAIN CONTROL
IC708 (AF MOTOR DRIVE)
16 MOTOR DRIVE 1
9 MOTOR DRIVE 2
13 MOTOR DRIVE 3
12 MOTOR DRIVE 4
RESET 20
ENABLE 21
CLK 1
CW/CCW 23
IC705
6
5
7
12
13
14
10
9
8
PWM
FROM PROCESS CIRCUIT IC306- 31
ALC DET
FROM PROCESS CIRCUIT
V REF (+)
V REF (−)

When pushing the TELE button, this signal becomes Low level.

When pushing the WIDE button, this signal becomes Low level.

This signal becomes momentary high when turning to power-on.

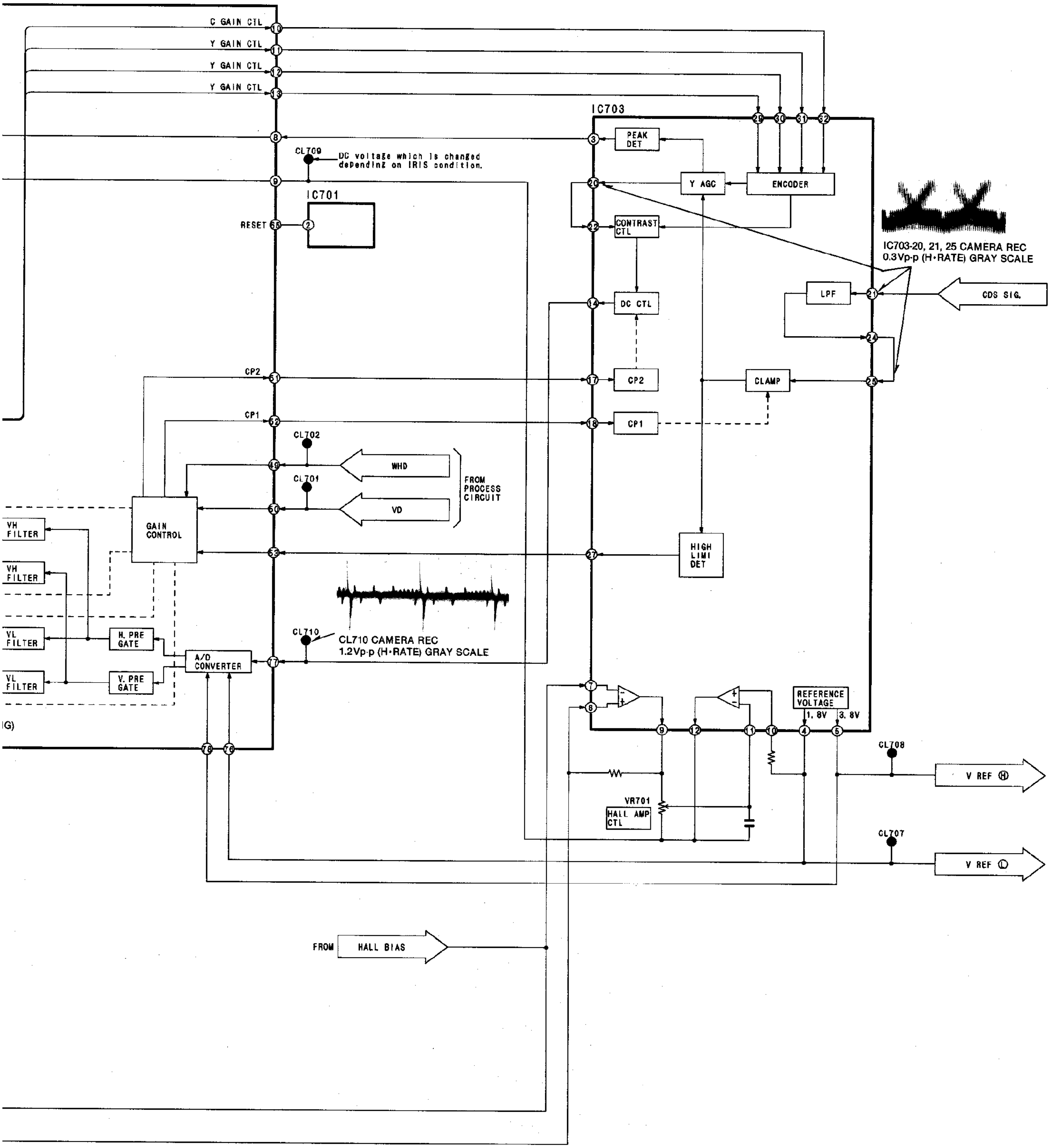
IC702-43 POWER-ON
(FOCUS MOTOR DRIVING)
5.0Vp-p (20msec./div.)

IC702-36 POWER-ON
(FOCUS MOTOR DRIVING)
5.0Vp-p (2msec./div.)

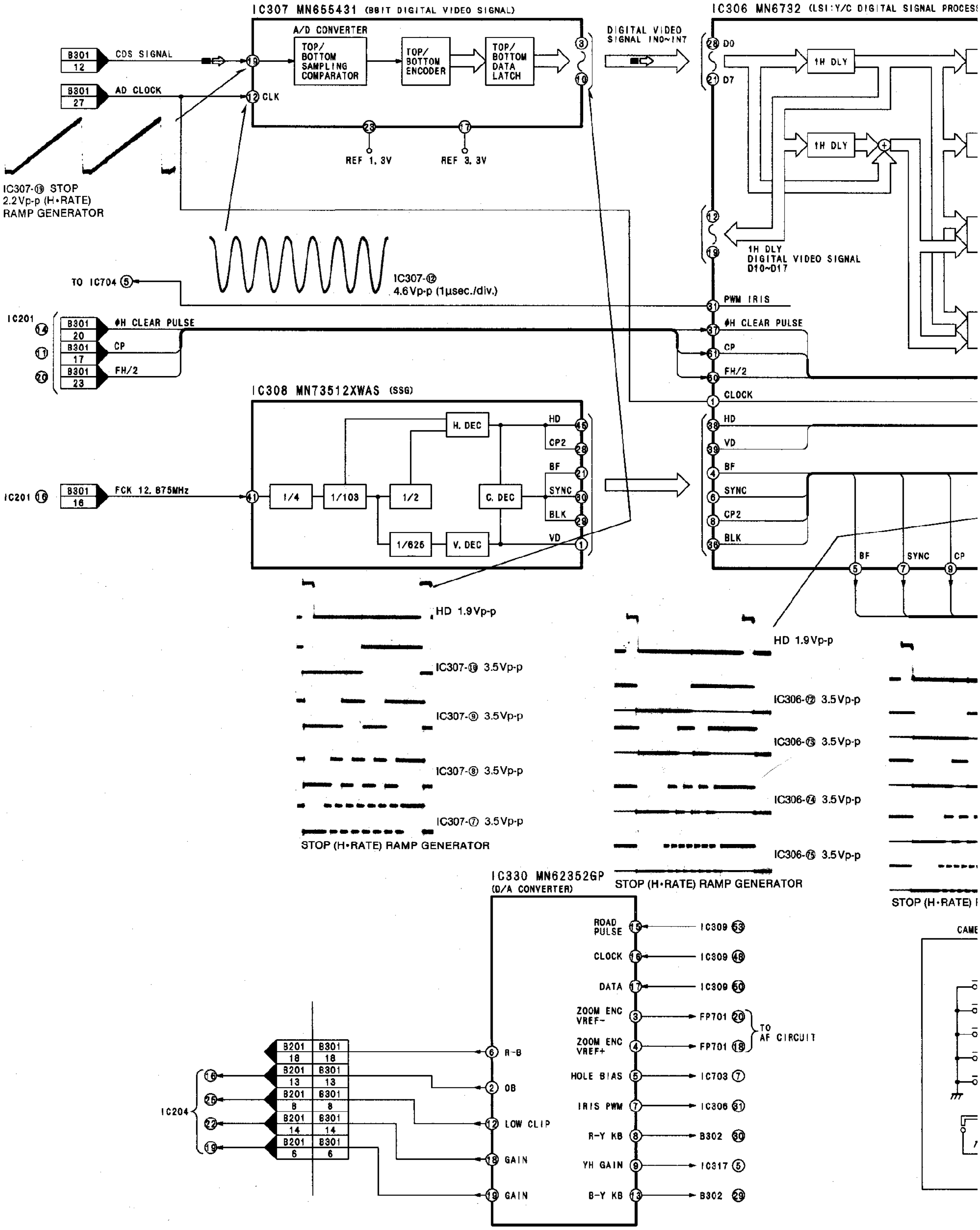
IC702-44 POWER-ON
(FOCUS MOTOR DRIVING)
5.0Vp-p (20msec./div.)

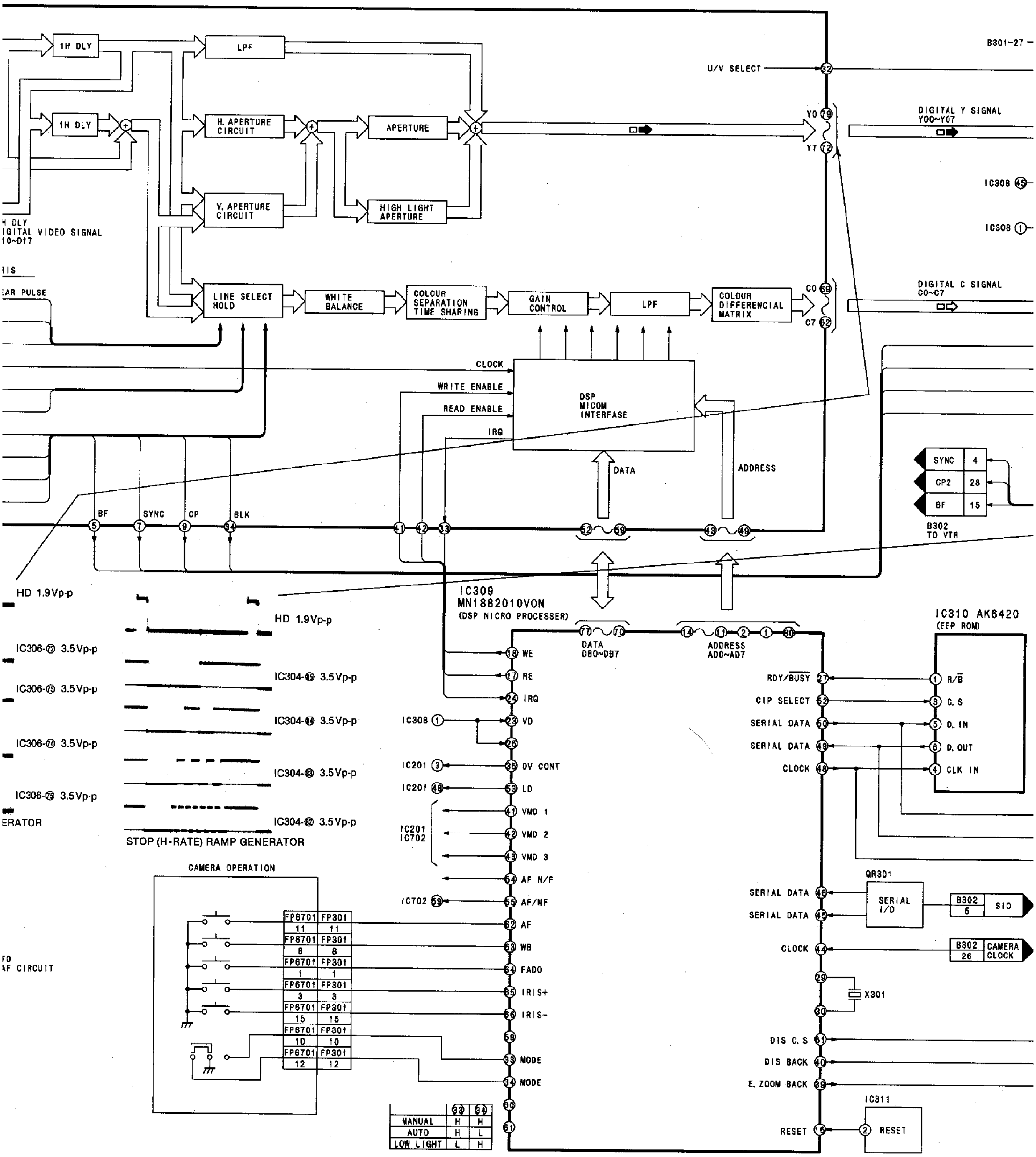
DC voltage which is changed depending on zoom condition.

n incoming light intencity.


C GAIN CTL
Y GAIN CTL
Y GAIN CTL
Y GAIN CTL
10
11
12
13
IC703
29
30
31
32
8
3
PEAK DET
CL709
DC voltage which is changed depending on IRIS condition.
9
20
Y AGC
ENCODER
IC701
RESET
65
2
22
CONTRAST CTL
IC703-20, 21, 25 CAMERA REC
0.3Vp-p (H·RATE) GRAY SCALE
14
DC CTL
LPF
21
CDS SIG.
24
CP2
51
17
CP2
CLAMP
25
CP1
52
18
CP1
CL702
49
WHD
CL701
FROM PROCESS CIRCUIT
VD
50
GAIN CONTROL
VH FILTER
VH FILTER
53
27
HIGH LIMI DET
VL FILTER
H. PRE GATE
CL710
CL710 CAMERA REC
1.2Vp-p (H·RATE) GRAY SCALE
VL FILTER
V. PRE GATE
A/D CONVERTER
77
7
8
REFERENCE VOLTAGE
1. 8V
3. 8V
IG)
78
76
9
12
11
10
4
5
CL708
V REF Ⓗ
VR701
HALL AMP CTL
CL707
V REF Ⓛ
FROM
HALL BIAS

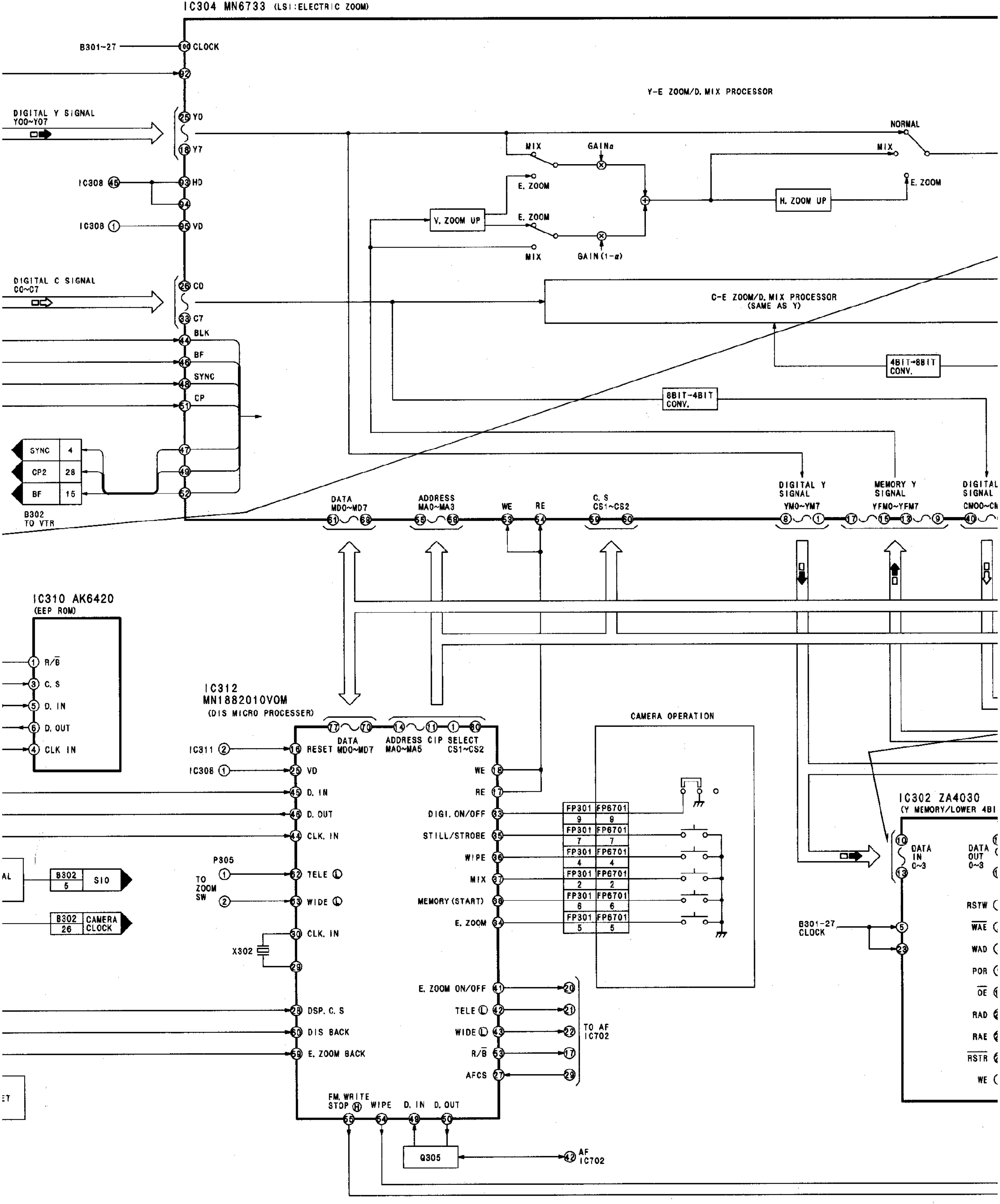
3-3. PROCESS BLOCK DIAGRAM

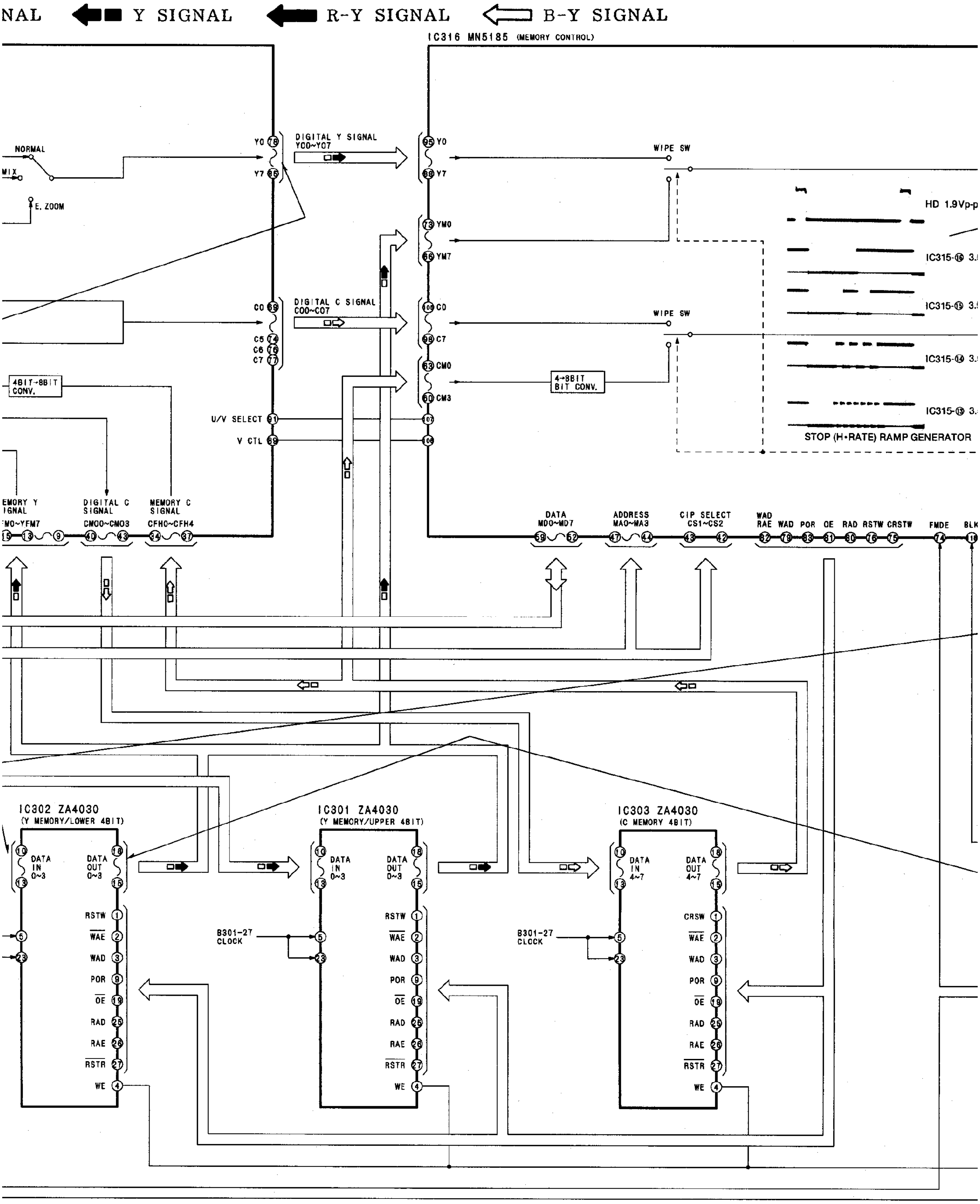

IC307 MN655431 (8BIT DIGITAL VIDEO SIGNAL)
A/D CONVERTER
TOP/ BOTTOM SAMPLING COMPARATOR
TOP/ BOTTOM ENCODER
TOP/ BOTTOM DATA LATCH
B301 12
CDS SIGNAL
B301 27
AD CLOCK
CLK
REF 1. 3V
REF 3. 3V
IC307-⑲ STOP
2.2Vp-p (H•RATE)
RAMP GENERATOR
IC307-⑫
4.6Vp-p (1µsec./div.)
TO IC704 ⑤
DIGITAL VIDEO SIGNAL IN0~IN7
IC306 MN6732 (LSI:Y/C DIGITAL SIGNAL PROCES
D0
D7
1H DLY
1H DLY
1H DLY DIGITAL VIDEO SIGNAL D10~D17
PWM IRIS
ΦH CLEAR PULSE
CP
FH/2
CLOCK
HD
VD
BF
SYNC
CP2
BLK
IC201
B301 20
B301 17
B301 23
ΦH CLEAR PULSE
CP
FH/2
IC308 MN73512XWAS (SSG)
H. DEC
1/4
1/103
1/2
1/625
V. DEC
C. DEC
HD
CP2
BF
SYNC
BLK
VD
IC201 ⑯
B301 16
FCK 12. 875MHz
BF
SYNC
CP
HD 1.9Vp-p
IC307-⑩ 3.5Vp-p
IC307-⑨ 3.5Vp-p
IC307-⑧ 3.5Vp-p
IC307-⑦ 3.5Vp-p
STOP (H•RATE) RAMP GENERATOR
HD 1.9Vp-p
IC306-⑫ 3.5Vp-p
IC306-⑬ 3.5Vp-p
IC306-⑭ 3.5Vp-p
IC306-⑮ 3.5Vp-p
STOP (H•RATE) RAMP GENERATOR
STOP (H•RATE) I
IC330 MN62352GP (D/A CONVERTER)
ROAD PULSE ⑮ IC309 53
CLOCK ⑯ IC309 48
DATA ⑰ IC309 50
ZOOM ENC VREF- ③ FP701 ⑳
ZOOM ENC VREF+ ④ FP701 ⑱
TO AF CIRCUIT
HOLE BIAS ⑤ IC703 ⑦
IRIS PWM ⑦ IC306 31
R-Y KB ⑧ B302 30
YH GAIN ⑨ IC317 ⑤
B-Y KB ⑬ B302 29
⑥ R-B
② OB
⑫ LOW CLIP
⑱ GAIN
⑲ GAIN
B201 18 B301 18
B201 13 B301 13
B201 8 B301 8
B201 14 B301 14
B201 6 B301 6
IC204
⑯
㉕
㉒
⑲
CAME

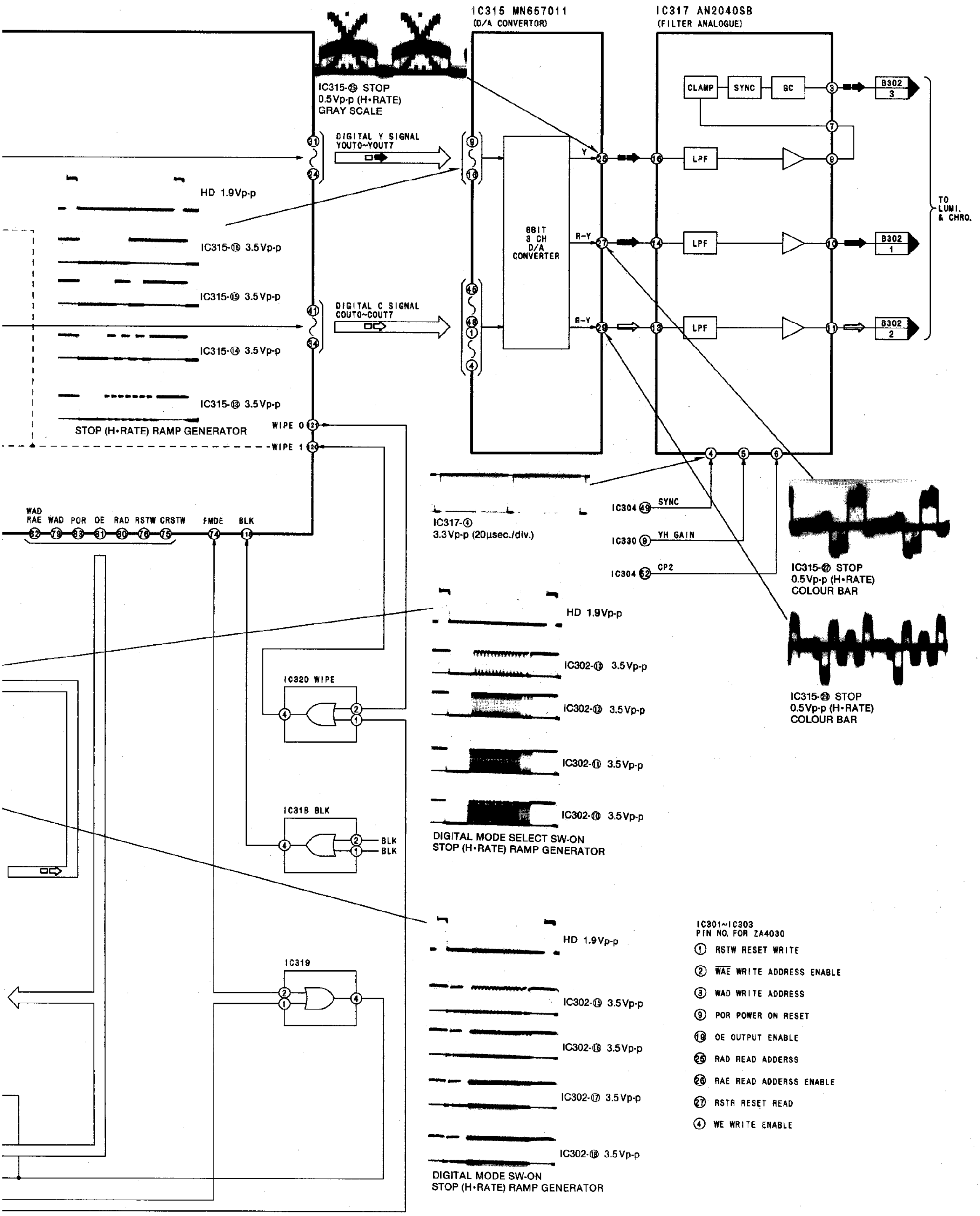

MN6732 (LSI:Y/C DIGITAL SIGNAL PROCESS)
1H DLY
1H DLY
LPF
H. APERTURE CIRCUIT
V. APERTURE CIRCUIT
APERTURE
HIGH LIGHT APERTURE
LINE SELECT HOLD
WHITE BALANCE
COLOUR SEPARATION TIME SHARING
GAIN CONTROL
LPF
COLOUR DIFFERENCIAL MATRIX
U/V SELECT
Y0
Y7
C0
C7
B301-27
DIGITAL Y SIGNAL Y00~Y07
DIGITAL C SIGNAL C0~C7
IC308 45
IC308 1
H DLY
IGITAL VIDEO SIGNAL
10~D17
IIS
EAR PULSE
CLOCK
WRITE ENABLE
READ ENABLE
IRQ
DSP MICOM INTERFASE
DATA
ADDRESS
BF
SYNC
CP
BLK
SYNC 4
CP2 28
BF 15
B302 TO VTR
HD 1.9Vp-p
HD 1.9Vp-p
IC306-72 3.5Vp-p
IC304-45 3.5Vp-p
IC306-73 3.5Vp-p
IC304-44 3.5Vp-p
IC306-74 3.5Vp-p
IC304-43 3.5Vp-p
IC306-75 3.5Vp-p
IC304-42 3.5Vp-p
ERATOR
STOP (H·RATE) RAMP GENERATOR
IC309 MN1882010VON (DSP NICRO PROCESSER)
DATA DB0~DB7
ADDRESS AD0~AD7
WE
RE
IRQ
VD
OV CONT
LD
VMD 1
VMD 2
VMD 3
AF N/F
AF/MF
AF
WB
FADO
IRIS+
IRIS-
MODE
MODE
IC308 1
IC201 3
IC201 48
IC201 IC702
IC702 59
RDY/BUSY
CIP SELECT
SERIAL DATA
SERIAL DATA
CLOCK
SERIAL DATA
SERIAL DATA
CLOCK
X301
DIS C.S
DIS BACK
E. ZOOM BACK
RESET
IC310 AK6420 (EEP ROM)
R/B
C.S
D. IN
D. OUT
CLK IN
QR301 SERIAL I/O
B302 5 SIO
B302 26 CAMERA CLOCK
IC311 RESET
CAMERA OPERATION
FP6701 FP301 11 11
FP6701 FP301 8 8
FP6701 FP301 1 1
FP6701 FP301 3 3
FP6701 FP301 15 15
FP6701 FP301 10 10
FP6701 FP301 12 12
TO AF CIRCUIT

	33	34
MANUAL	H	H
AUTO	H	L
LOW LIGHT	L	H

⇦■ PRE VIDEO SIGNAL ⬅□ DIGITAL Y SIGNAL ⇦□ DIGITAL C SIGNAL ⬅■


IC304 MN6733 (LSI:ELECTRIC ZOOM)
B301-27
(100) CLOCK
(92)
DIGITAL Y SIGNAL
Y00~Y07
(25) Y0
(18) Y7
IC308 (45)
(93) HD
(94)
IC308 ①
(95) VD
DIGITAL C SIGNAL
C0~C7
(26) C0
(33) C7
(44) BLK
(46) BF
(48) SYNC
(51) CP
(47)
(49)
(52)
SYNC 4
CP2 28
BF 15
B302
TO VTR
Y-E ZOOM/D. MIX PROCESSOR
MIX
GAINα
E. ZOOM
V. ZOOM UP
E. ZOOM
MIX
GAIN(1-α)
NORMAL
MIX
E. ZOOM
H. ZOOM UP
C-E ZOOM/D. MIX PROCESSOR
(SAME AS Y)
4BIT→8BIT CONV.
8BIT→4BIT CONV.
DATA MD0~MD7
(61) (68)
ADDRESS MA0~MA3
(55) (58)
WE (53)
RE (54)
C. S CS1~CS2
(59) (60)
DIGITAL Y SIGNAL
YM0~YM7
⑧ ①
MEMORY Y SIGNAL
YFM0~YFM7
(17) (15) (13) ⑨
DIGITAL SIGNAL
CM00~CM
(40)
IC310 AK6420
(EEP ROM)
① R/B̄
③ C. S
⑤ D. IN
⑥ D. OUT
④ CLK IN
IC312
MN1882010VOM
(DIS MICRO PROCESSER)
(77) (70)
DATA MD0~MD7
(14) (11) ① (80)
ADDRESS MA0~MA5
CIP SELECT CS1~CS2
IC311 ②
(16) RESET
IC308 ①
(25) VD
(45) D. IN
(46) D. OUT
(44) CLK. IN
P305
TO ZOOM SW
① (62) TELE Ⓛ
② (63) WIDE Ⓛ
X302
(30) CLK. IN
(29)
(28) DSP. C. S
(50) DIS BACK
(59) E. ZOOM BACK
AL
B302 5 SIO
B302 26 CAMERA CLOCK
ET
(18) WE
(17) RE
DIGI. ON/OFF (33)
STILL/STROBE (35)
WIPE (36)
MIX (37)
MEMORY (START) (38)
E. ZOOM (34)
CAMERA OPERATION
FP301 FP6701 9 9
FP301 FP6701 7 7
FP301 FP6701 4 4
FP301 FP6701 2 2
FP301 FP6701 6 6
FP301 FP6701 5 5
E. ZOOM ON/OFF (41) (20)
TELE Ⓛ (42) (21)
WIDE Ⓛ (43) (22)
R/B̄ (53) (17)
AFCS (27) (29)
TO AF IC702
FM. WRITE STOP Ⓗ (55)
WIPE (54)
D. IN (49)
D. OUT (50)
Q305
(42) AF IC702
IC302 ZA4030
(Y MEMORY/LOWER 4BI
(10) DATA IN 0~3
(13)
DATA OUT 0~3
B301-27 CLOCK
⑤
(23)
RSTW
WAE
WAD
POR
OE
RAD
RAE
RSTR
WE

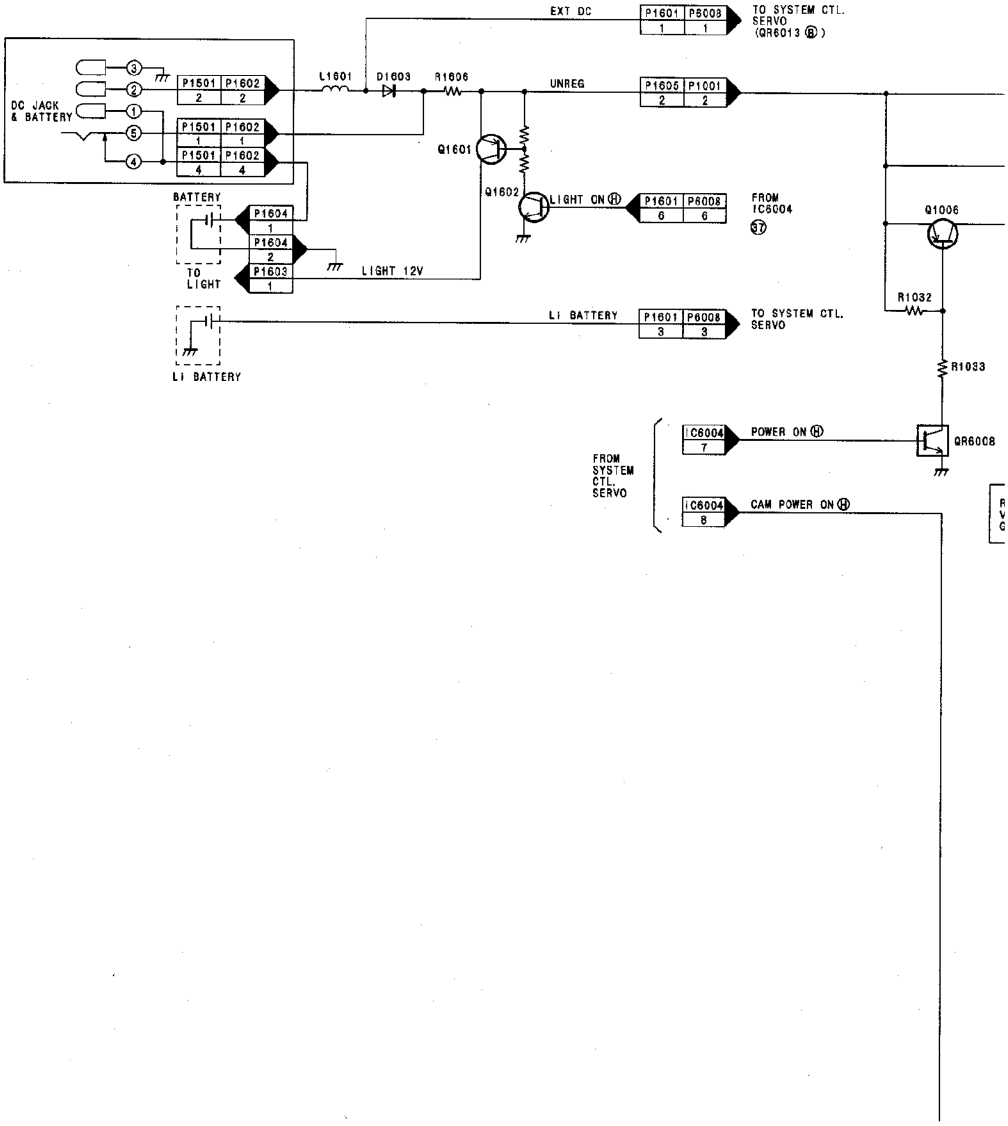

NAL
Y SIGNAL
R-Y SIGNAL
B-Y SIGNAL
IC316 MN5185 (MEMORY CONTROL)
NORMAL
MIX
E. ZOOM
Y0
Y7
DIGITAL Y SIGNAL
YC0~YC7
Y0
Y7
WIPE SW
HD 1.9Vp-p
YM0
YM7
IC315-⑯ 3.
IC315-⑮ 3.
C0
C5
C6
C7
DIGITAL C SIGNAL
CC0~CC7
C0
C7
WIPE SW
IC315-⑭ 3.
CM0
CM3
4→8BIT BIT CONV.
4BIT→8BIT CONV.
IC315-⑬ 3.
U/V SELECT
V CTL
STOP (H-RATE) RAMP GENERATOR
EMORY Y IGNAL
'M0~YFM7
DIGITAL C SIGNAL
CMO0~CMO3
MEMORY C SIGNAL
CFH0~CFH4
DATA MD0~MD7
ADDRESS MA0~MA3
CIP SELECT CS1~CS2
WAD RAE
WAD
POR
OE
RAD
RSTW
CRSTW
FMDE
BLK
IC302 ZA4030 (Y MEMORY/LOWER 4BIT)
IC301 ZA4030 (Y MEMORY/UPPER 4BIT)
IC303 ZA4030 (C MEMORY 4BIT)
DATA IN 0~3
DATA OUT 0~3
DATA IN 4~7
DATA OUT 4~7
RSTW
CRSW
WAE
WAD
POR
OE
RAD
RAE
RSTR
WE
B301-27 CLOCK
B301-27 CLOCK

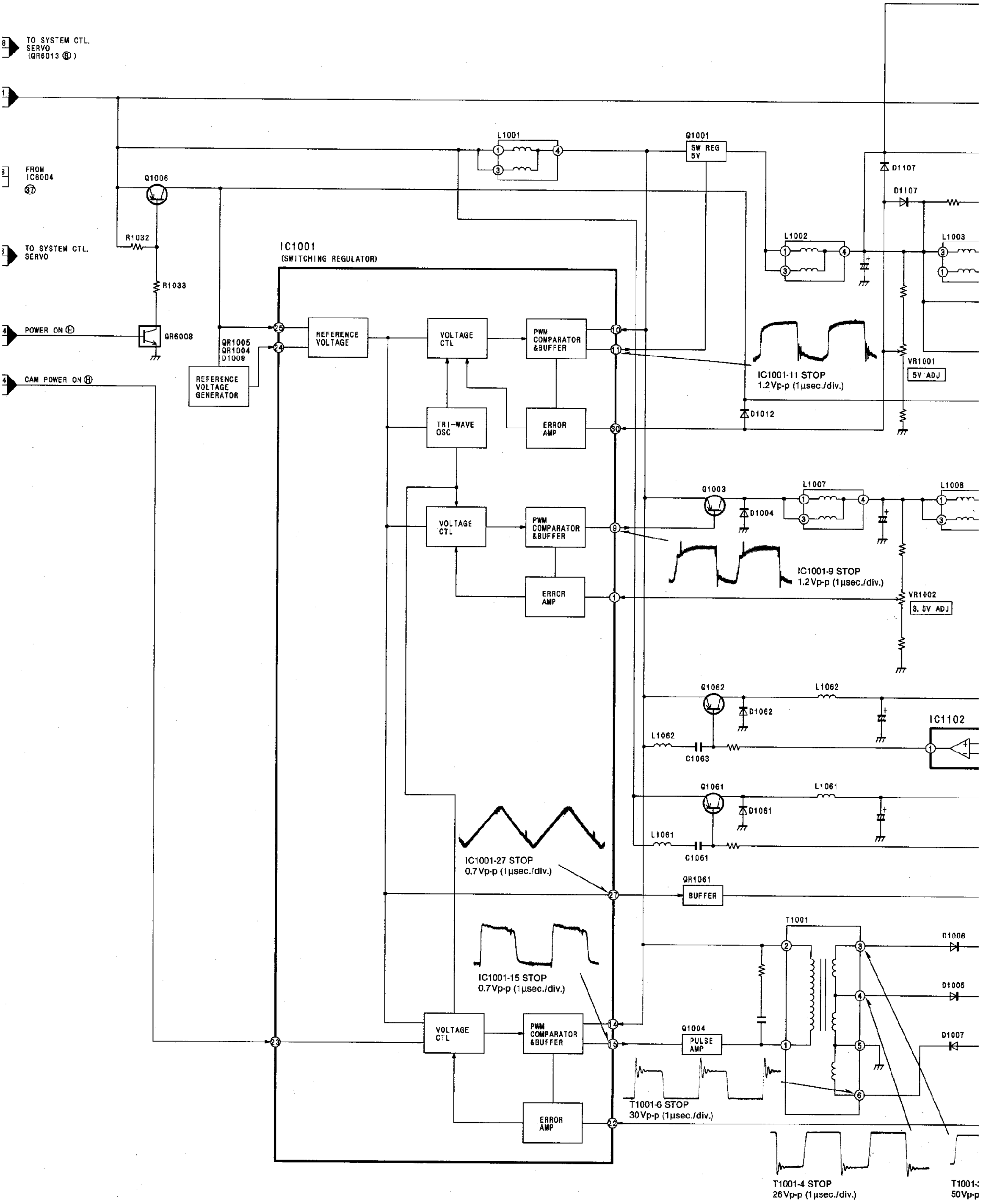

IC315 MN657011
(D/A CONVERTOR)
IC317 AN2040SB
(FILTER ANALOGUE)
IC315-㉕ STOP
0.5Vp-p (H•RATE)
GRAY SCALE
DIGITAL Y SIGNAL
YOUT0~YOUT7
DIGITAL C SIGNAL
COUT0~COUT7
HD 1.9Vp-p
IC315-⑯ 3.5Vp-p
IC315-⑮ 3.5Vp-p
IC315-⑭ 3.5Vp-p
IC315-⑬ 3.5Vp-p
STOP (H•RATE) RAMP GENERATOR
WIPE 0
WIPE 1
8BIT
3 CH
D/A
CONVERTER
Y
R-Y
B-Y
CLAMP
SYNC
GC
LPF
LPF
LPF
B302 3
B302 1
B302 2
TO LUMI. & CHRO.
IC317-④
3.3Vp-p (20µsec./div.)
IC304 ㊾ SYNC
IC330 ⑨ YH GAIN
IC304 52 CP2
IC315-㉗ STOP
0.5Vp-p (H•RATE)
COLOUR BAR
IC315-㉙ STOP
0.5Vp-p (H•RATE)
COLOUR BAR
WAD
RAE WAD POR OE RAD RSTW CRSTW FMDE BLK
IC320 WIPE
IC318 BLK
BLK
BLK
IC319
HD 1.9Vp-p
IC302-⑬ 3.5Vp-p
IC302-⑫ 3.5Vp-p
IC302-⑪ 3.5Vp-p
IC302-⑩ 3.5Vp-p
DIGITAL MODE SELECT SW-ON
STOP (H•RATE) RAMP GENERATOR
HD 1.9Vp-p
IC302-⑮ 3.5Vp-p
IC302-⑯ 3.5Vp-p
IC302-⑰ 3.5Vp-p
IC302-⑱ 3.5Vp-p
DIGITAL MODE SW-ON
STOP (H•RATE) RAMP GENERATOR

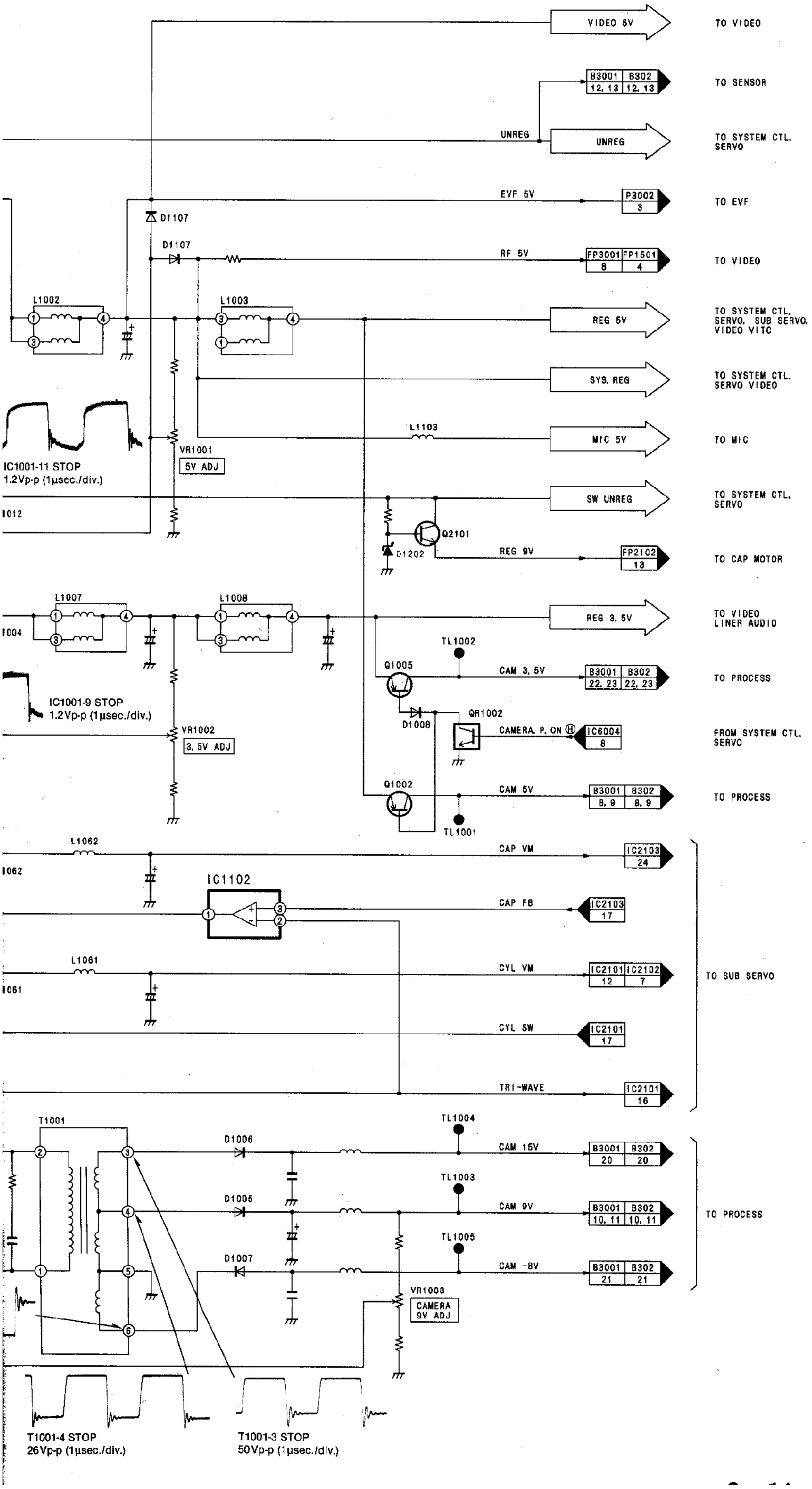
IC301~IC303
PIN NO. FOR ZA4030

① RSTW RESET WRITE
② $\overline{\text{WAE}}$ WRITE ADDRESS ENABLE
③ WAD WRITE ADDRESS
⑨ POR POWER ON RESET
⑲ OE OUTPUT ENABLE
㉕ RAD READ ADDERSS
㉖ RAE READ ADDERSS ENABLE
㉗ RSTR RESET READ
④ WE WRITE ENABLE

3-4. POWER BLOCK DIAGRAM


DC JACK & BATTERY
③
②
①
⑤
④
P1501 P1602 2 2
P1501 P1602 1 1
P1501 P1602 4 4
L1601
D1603
R1606
EXT DC
P1601 P6008 1 1
TO SYSTEM CTL. SERVO (QR6013 Ⓑ)
UNREG
P1605 P1001 2 2
Q1601
Q1602
LIGHT ON Ⓗ
P1601 P6008 6 6
FROM IC6004 ㊲
BATTERY
P1604 1
P1604 2
P1603 1
TO LIGHT
LIGHT 12V
LI BATTERY
P1601 P6008 3 3
TO SYSTEM CTL. SERVO
LI BATTERY
Q1006
R1032
R1033
FROM SYSTEM CTL. SERVO
IC6004 7
POWER ON Ⓗ
QR6008
IC6004 8
CAM POWER ON Ⓗ

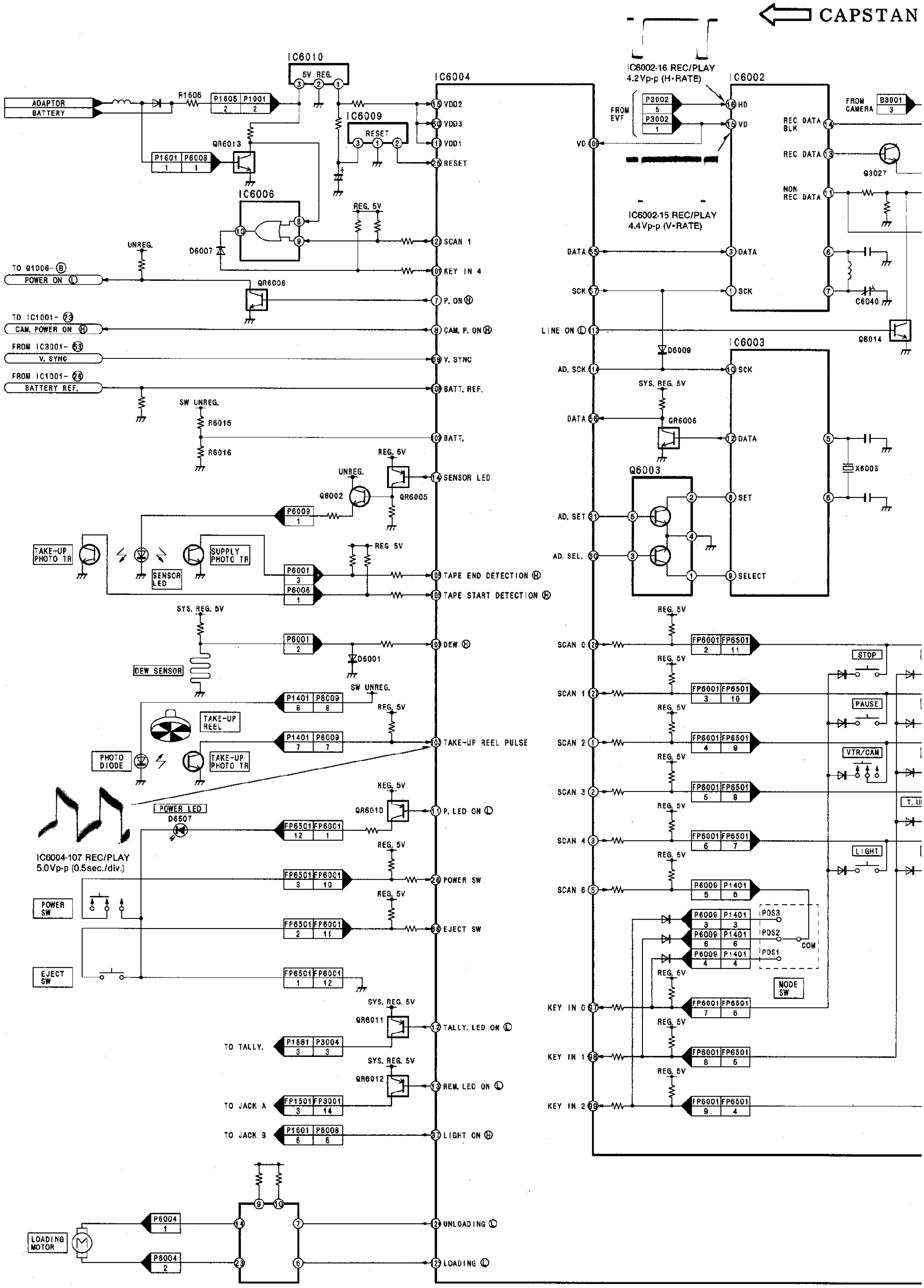

TO SYSTEM CTL.
SERVO
(QR6013 Ⓑ)
FROM
IC6004
㊲
TO SYSTEM CTL.
SERVO
POWER ON Ⓗ
CAM POWER ON Ⓗ
Q1006
R1032
R1033
QR6008
QR1005
QR1004
D1009
REFERENCE
VOLTAGE
GENERATOR
IC1001
(SWITCHING REGULATOR)
REFERENCE
VOLTAGE
VOLTAGE
CTL
PWM
COMPARATOR
&BUFFER
TRI-WAVE
OSC
ERROR
AMP
L1001
Q1001
SW REG
5V
L1002
D1107
D1107
L1003
VR1001
5V ADJ
D1012
IC1001-11 STOP
1.2Vp-p (1µsec./div.)
Q1003
D1004
L1007
L1008
IC1001-9 STOP
1.2Vp-p (1µsec./div.)
VR1002
3. 5V ADJ
Q1062
D1062
L1062
L1062
C1063
IC1102
Q1061
D1061
L1061
L1061
C1061
IC1001-27 STOP
0.7Vp-p (1µsec./div.)
QR1061
BUFFER
T1001
D1006
D1005
D1007
IC1001-15 STOP
0.7Vp-p (1µsec./div.)
Q1004
PULSE
AMP
T1001-6 STOP
30Vp-p (1µsec./div.)
T1001-4 STOP
26Vp-p (1µsec./div.)
T1001-
50Vp-p


VIDEO 5V
TO VIDEO
B3001 12, 13
B302 12, 13
TO SENSOR
UNREG
UNREG
TO SYSTEM CTL. SERVO
EVF 5V
P3002 3
TO EVF
D1107
D1107
RF 5V
FP3001 8
FP1501 4
TO VIDEO
L1002
L1003
REG 5V
TO SYSTEM CTL. SERVO, SUB SERVO. VIDEO VITC
SYS. REG
TO SYSTEM CTL. SERVO VIDEO
L1103
MIC 5V
TO MIC
VR1001
5V ADJ
IC1001-11 STOP
1.2Vp-p (1µsec./div.)
SW UNREG
TO SYSTEM CTL. SERVO
1012
Q2101
D1202
REG 9V
FP2102 13
TO CAP MOTOR
L1007
L1008
1004
REG 3. 5V
TO VIDEO LINER AUDIO
TL1002
Q1005
CAM 3. 5V
B3001 22, 23
B302 22, 23
TO PROCESS
IC1001-9 STOP
1.2Vp-p (1µsec./div.)
D1008
QR1002
VR1002
3. 5V ADJ
CAMERA. P. ON Ⓗ
IC6004 8
FROM SYSTEM CTL. SERVO
Q1002
CAM 5V
B3001 8, 9
B302 8, 9
TO PROCESS
TL1001
L1062
1062
CAP VM
IC2103 24
IC1102
CAP FB
IC2103 17
L1061
1061
CYL VM
IC2101 12
IC2102 7
TO SUB SERVO
CYL SW
IC2101 17
TRI-WAVE
IC2101 16
T1001
D1006
TL1004
CAM 15V
B3001 20
B302 20
TL1003
D1005
CAM 9V
B3001 10, 11
B302 10, 11
TO PROCESS
TL1005
D1007
CAM -8V
B3001 21
B302 21
VR1003
CAMERA 9V ADJ
T1001-4 STOP
26Vp-p (1µsec./div.)
T1001-3 STOP
50Vp-p (1µsec./div.)

3-5. SYSTEM CONTROL & SERVO BLOCK DIAGRAM

◀ CAPSTAN

⇦ CAPSTAN

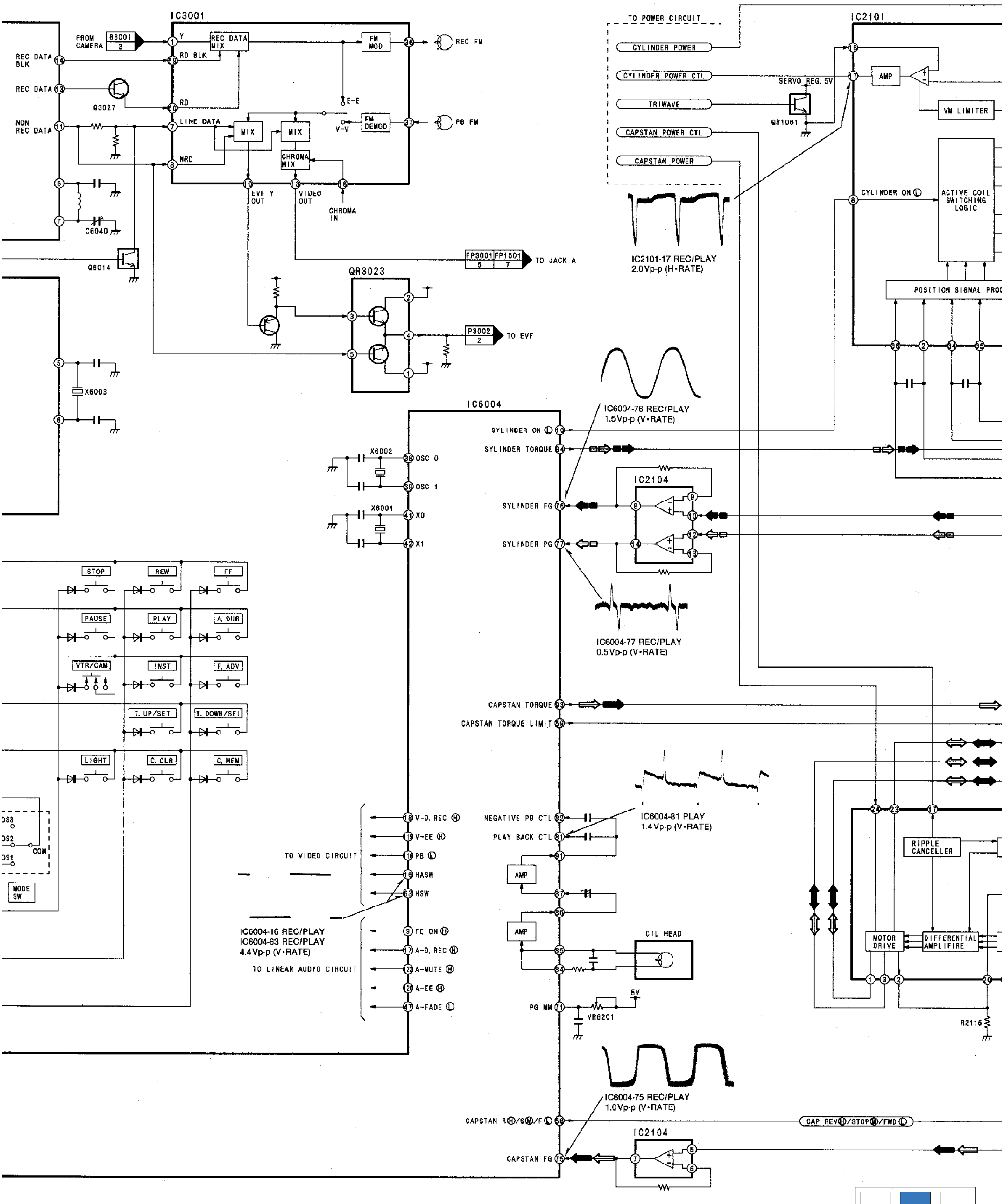

IC6010
5V REG.
IC6004
IC6009
RESET
IC6006
IC6002
IC6003
Q6003
ADAPTOR
BATTERY
R1606
P1605 P1001
P1601 P6008
QR6013
D6007
UNREG.
TO Q1006-Ⓑ
POWER ON Ⓛ
QR6008
TO IC1001-㉓
CAM. POWER ON Ⓗ
FROM IC3001-㊸
V. SYNC
FROM IC1001-㉖
BATTERY REF.
SW UNREG.
R6015
R6016
VDD2
VDD3
VDD1
RESET
REG. 5V
SCAN 1
KEY IN 4
P. ON Ⓗ
CAM. P. ON Ⓗ
V. SYNC
BATT. REF.
BATT.
SENSOR LED
Q6002
QR6005
P6009
TAKE-UP PHOTO TR
SENSOR LED
SUPPLY PHOTO TR
P6001
P6006
TAPE END DETECTION Ⓗ
TAPE START DETECTION Ⓗ
SYS. REG. 5V
DEW SENSOR
D6001
DEW Ⓗ
SW UNREG.
P1401 P6009
TAKE-UP REEL
PHOTO DIODE
TAKE-UP PHOTO TR
TAKE-UP REEL PULSE
IC6004-107 REC/PLAY
5.0Vp-p (0.5sec./div.)
POWER LED
D6507
QR6010
FP6501 FP6001
P. LED ON Ⓛ
POWER SW
EJECT SW
QR6011
TALLY. LED ON Ⓛ
TO TALLY.
P1881 P3004
QR6012
REM. LED ON Ⓛ
TO JACK A
FP1501 FP3001
TO JACK B
P1601 P6008
LIGHT ON Ⓗ
LOADING MOTOR
P6004
UNLOADING Ⓛ
LOADING Ⓛ
IC6002-16 REC/PLAY
4.2Vp-p (H•RATE)
IC6002-15 REC/PLAY
4.4Vp-p (V•RATE)
FROM EVF
P3002
HD
VD
FROM CAMERA
B3001
REC DATA BLK
REC DATA
NON REC DATA
Q3027
DATA
SCK
C6040
LINE ON Ⓛ
Q6014
D6009
AD. SCK
SYS. REG. 5V
QR6006
X6003
SET
AD. SET
AD. SEL.
SELECT
SCAN 0
SCAN 1
SCAN 2
SCAN 3
SCAN 4
SCAN 6
FP6001 FP6501
P6009 P1401
STOP
PAUSE
VTR/CAM
LIGHT
POS3
POS2
POS1
COM
MODE SW
KEY IN 0
KEY IN 1
KEY IN 2

■ CAPSTAN SERVO SPEED LOOP

□ CAPSTAN SERVO PHASE LOOP

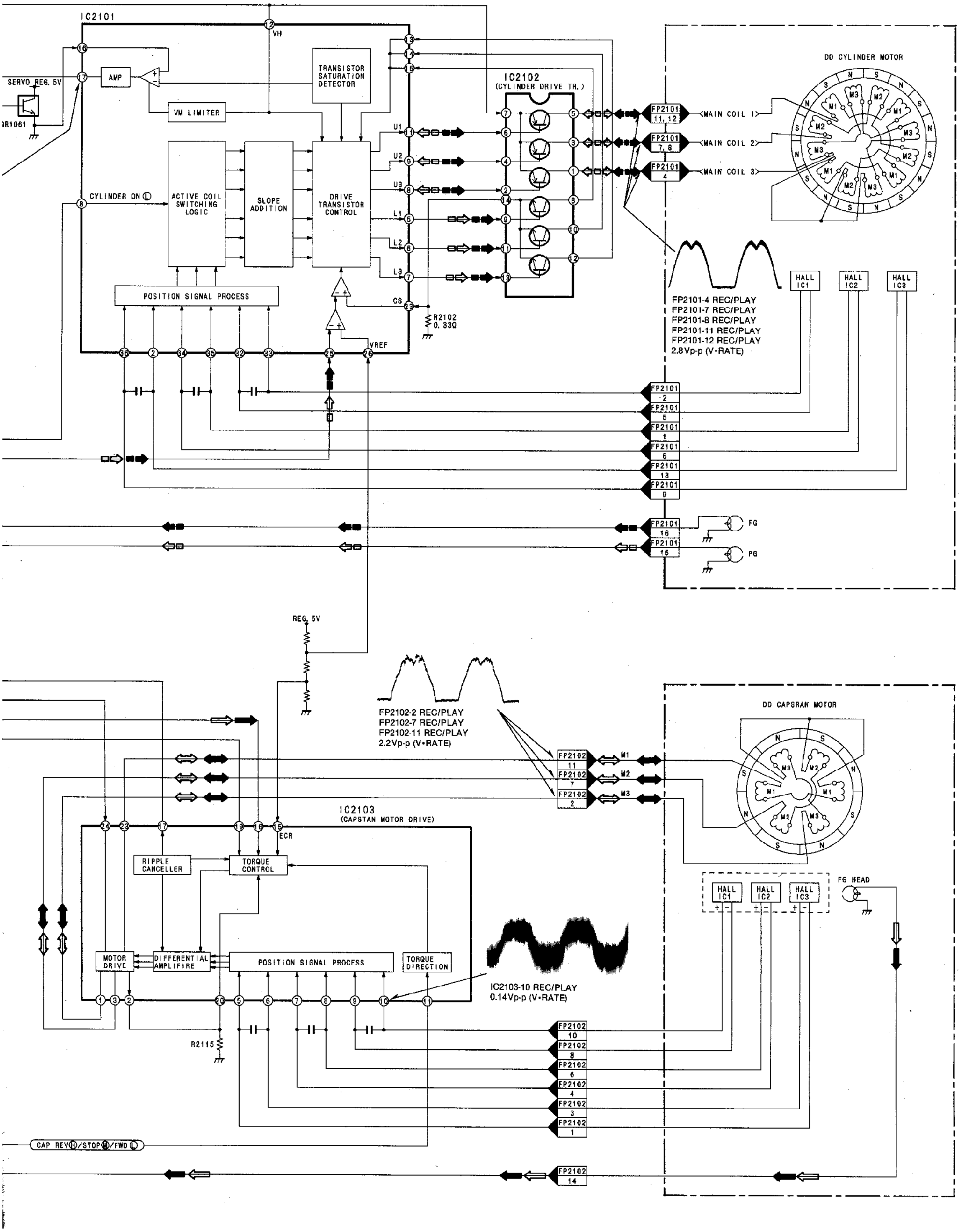
◀■ CYLINDER SERVO SPEED LOOP

◁□ CYLINDER SERVO PHASE LOOP



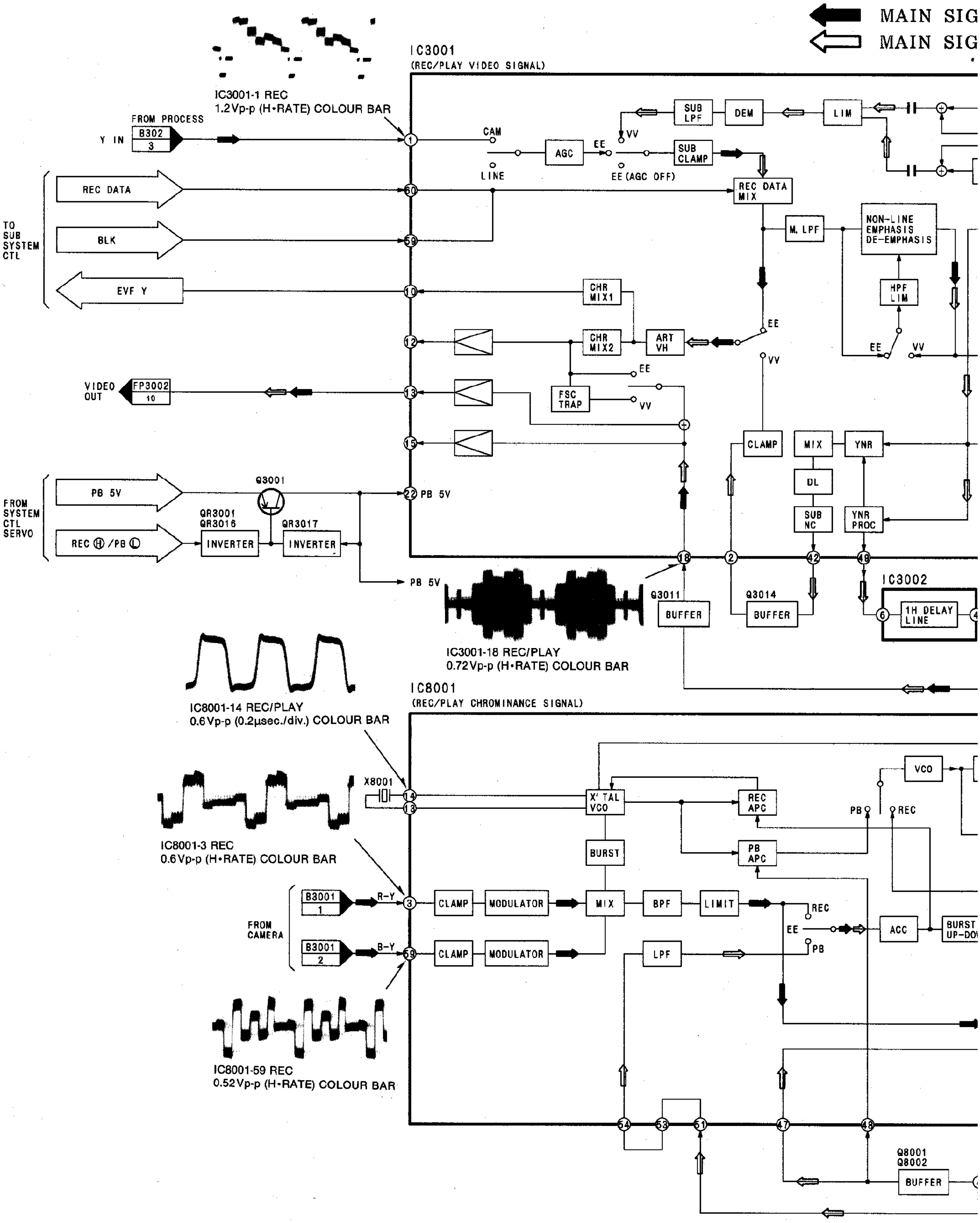
IC3001
FROM CAMERA
B3001 3
Y
REC DATA MIX
FM MOD
REC FM
REC DATA BLK
RD BLK
REC DATA
Q3027
RD
E-E
NON REC DATA
LINE DATA
MIX
MIX
V-V
FM DEMOD
PB FM
NRD
CHROMA MIX
EVF Y OUT
VIDEO OUT
CHROMA IN
C6040
Q6014
FP3001 5
FP1501 7
TO JACK A
QR3023
P3002 2
TO EVF
X6003
IC6004
SYLINDER ON Ⓛ
SYLINDER TORQUE
X6002
OSC O
OSC I
X6001
X0
X1
IC2104
SYLINDER FG
SYLINDER PG
STOP
REW
FF
PAUSE
PLAY
A. DUB
VTR/CAM
INST
F. ADV
T. UP/SET
T. DOWN/SEL
LIGHT
C. CLR
C. MEM
DS3
DS2
DS1
COM
MODE SW
TO VIDEO CIRCUIT
V-D. REC Ⓗ
V-EE Ⓗ
PB Ⓛ
HASW
HSW
IC6004-16 REC/PLAY
IC6004-63 REC/PLAY
4.4Vp-p (V•RATE)
TO LINEAR AUDIO CIRCUIT
FE ON Ⓗ
A-D. REC Ⓗ
A-MUTE Ⓗ
A-EE Ⓗ
A-FADE Ⓛ
TO POWER CIRCUIT
CYLINDER POWER
CYLINDER POWER CTL
TRIWAVE
CAPSTAN POWER CTL
CAPSTAN POWER
SERVO REG. 5V
QR1061
IC2101
AMP
VM LIMITER
CYLINDER ON Ⓛ
ACTIVE COIL SWITCHING LOGIC
POSITION SIGNAL PROC
IC2101-17 REC/PLAY
2.0Vp-p (H•RATE)
IC6004-76 REC/PLAY
1.5Vp-p (V•RATE)
IC6004-77 REC/PLAY
0.5Vp-p (V•RATE)
CAPSTAN TORQUE
CAPSTAN TORQUE LIMIT
NEGATIVE PB CTL
PLAY BACK CTL
IC6004-81 PLAY
1.4Vp-p (V•RATE)
AMP
AMP
CTL HEAD
PG MM
5V
VR6201
RIPPLE CANCELLER
MOTOR DRIVE
DIFFERENTIAL AMPLIFIRE
R2115
IC6004-75 REC/PLAY
1.0Vp-p (V•RATE)
CAPSTAN RⒽ/SⓂ/FⓁ
CAP REVⒽ/STOPⓂ/FWDⓁ
IC2104
CAPSTAN FG

OP



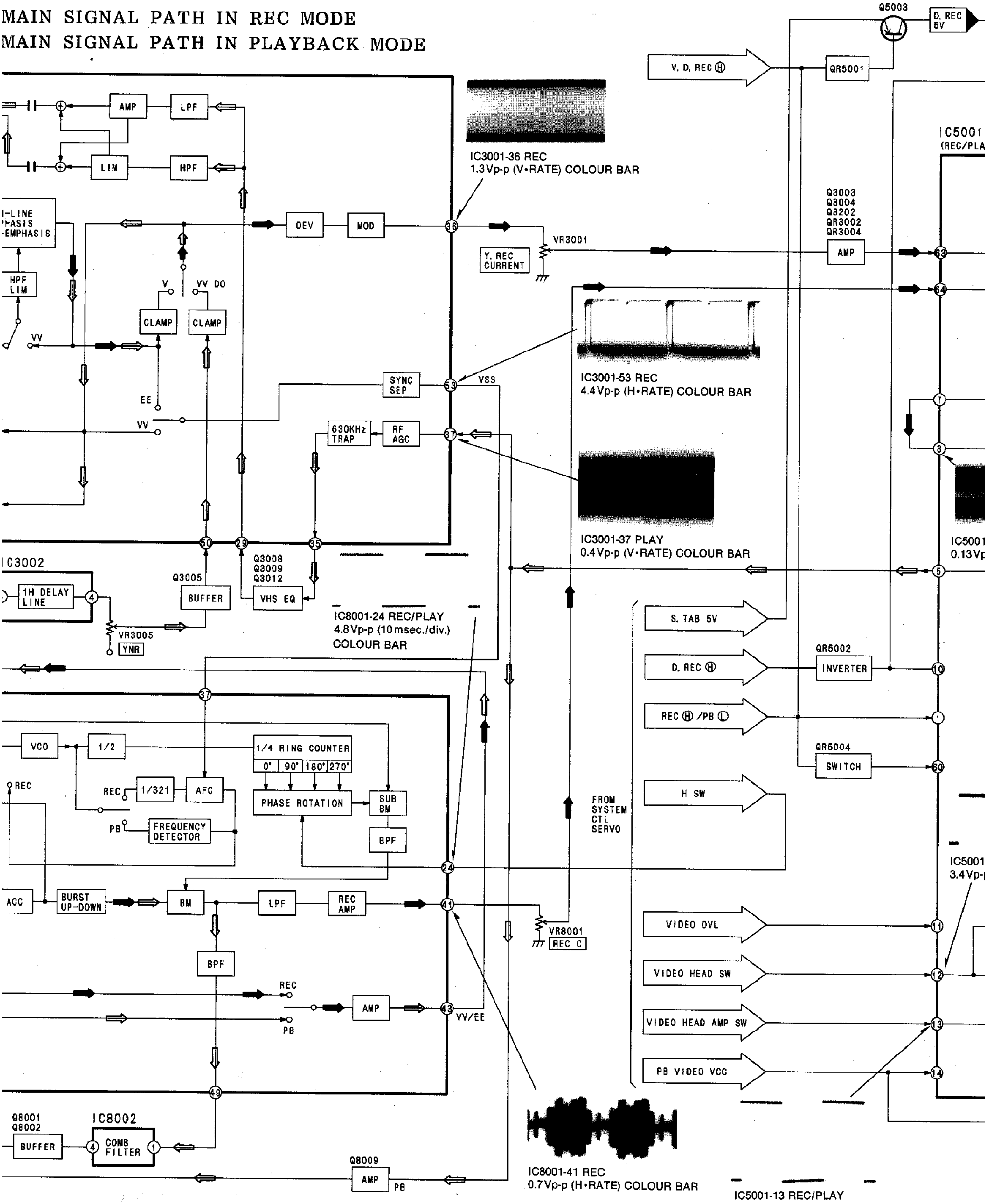
IC2101
VH
SERVO REG. 5V
AMP
VM LIMITER
TRANSISTOR SATURATION DETECTOR
R1061
CYLINDER ON Ⓛ
ACTIVE COIL SWITCHING LOGIC
SLOPE ADDITION
DRIVE TRANSISTOR CONTROL
U1
U2
U3
L1
L2
L3
CS
VREF
POSITION SIGNAL PROCESS
R2102 0.33Ω
IC2102 (CYLINDER DRIVE TR.)
FP2101 11, 12
FP2101 7, 8
FP2101 4
MAIN COIL 1
MAIN COIL 2
MAIN COIL 3
DD CYLINDER MOTOR
N
S
M1
M2
M3
HALL IC1
HALL IC2
HALL IC3
FP2101-4 REC/PLAY
FP2101-7 REC/PLAY
FP2101-8 REC/PLAY
FP2101-11 REC/PLAY
FP2101-12 REC/PLAY
2.8Vp-p (V•RATE)
FP2101 2
FP2101 5
FP2101 1
FP2101 6
FP2101 13
FP2101 9
FP2101 16
FP2101 15
FG
PG
REG. 5V
FP2102-2 REC/PLAY
FP2102-7 REC/PLAY
FP2102-11 REC/PLAY
2.2Vp-p (V•RATE)
FP2102 11
FP2102 7
FP2102 2
M1
M2
M3
DD CAPSRAN MOTOR
IC2103 (CAPSTAN MOTOR DRIVE)
ECR
RIPPLE CANCELLER
TORQUE CONTROL
MOTOR DRIVE
DIFFERENTIAL AMPLIFIRE
POSITION SIGNAL PROCESS
TORQUE DIRECTION
IC2103-10 REC/PLAY
0.14Vp-p (V•RATE)
R2115
HALL IC1
HALL IC2
HALL IC3
FG HEAD
FP2102 10
FP2102 8
FP2102 6
FP2102 4
FP2102 3
FP2102 1
CAP REVⒽ/STOPⓂ/FWDⓁ
FP2102 14

3-6. LUMINANCE/CHROMINANCE & HEAD AMP BLOCK DIAGRAM


MAIN SIG
MAIN SIG
IC3001
(REC/PLAY VIDEO SIGNAL)
IC3001-1 REC
1.2Vp-p (H•RATE) COLOUR BAR
FROM PROCESS
Y IN
B302
3
CAM
LINE
AGC
EE
VV
EE (AGC OFF)
SUB LPF
DEM
LIM
SUB CLAMP
REC DATA MIX
TO SUB SYSTEM CTL
REC DATA
BLK
EVF Y
M. LPF
NON-LINE EMPHASIS DE-EMPHASIS
HPF LIM
CHR MIX1
CHR MIX2
ART VH
FSC TRAP
VIDEO OUT
FP3002
10
CLAMP
MIX
YNR
DL
SUB NC
YNR PROC
FROM SYSTEM CTL SERVO
PB 5V
Q3001
QR3001
QR3016
QR3017
REC Ⓗ/PB Ⓛ
INVERTER
INVERTER
PB 5V
PB 5V
IC3001-18 REC/PLAY
0.72Vp-p (H•RATE) COLOUR BAR
Q3011
BUFFER
Q3014
BUFFER
IC3002
1H DELAY LINE
IC8001-14 REC/PLAY
0.6Vp-p (0.2μsec./div.) COLOUR BAR
IC8001
(REC/PLAY CHROMINANCE SIGNAL)
X8001
X' TAL VCO
REC APC
PB APC
BURST
VCO
PB
REC
IC8001-3 REC
0.6Vp-p (H•RATE) COLOUR BAR
FROM CAMERA
B3001
1
R-Y
B3001
2
B-Y
CLAMP
MODULATOR
MIX
BPF
LIMIT
CLAMP
MODULATOR
LPF
REC
EE
PB
ACC
BURST UP-DO
IC8001-59 REC
0.52Vp-p (H•RATE) COLOUR BAR
Q8001
Q8002
BUFFER
1
60
59
10
12
13
15
22
18
2
42
49
6
14
13
3
59
54
53
51
47
48

M

MAIN SIGNAL PATH IN REC MODE
MAIN SIGNAL PATH IN PLAYBACK MODE


AMP
LPF
LIM
HPF
-LINE
HASIS
EMPHASIS
HPF
LIM
VV
DEV
MOD
36
V
VV DO
CLAMP
CLAMP
EE
VV
SYNC SEP
53
VSS
630KHz TRAP
RF AGC
37
50
29
35
IC3002
1H DELAY LINE
4
VR3005
YNR
Q3005
BUFFER
Q3008
Q3009
Q3012
VHS EQ
Y. REC CURRENT
VR3001
Q5003
D. REC 5V
V. D. REC Ⓗ
QR5001
IC5001
(REC/PLA
Q3003
Q3004
Q3202
QR3002
QR3004
AMP
63
64
7
8
5
S. TAB 5V
D. REC Ⓗ
QR5002
INVERTER
10
REC Ⓗ /PB Ⓛ
1
QR5004
SWITCH
60
H SW
FROM SYSTEM CTL SERVO
VIDEO OVL
11
VIDEO HEAD SW
12
VIDEO HEAD AMP SW
13
PB VIDEO VCC
14
37
VCO
1/2
1/4 RING COUNTER
0°
90°
180°
270°
REC
REC
1/321
AFC
PHASE ROTATION
SUB BM
PB
FREQUENCY DETECTOR
BPF
24
ACC
BURST UP-DOWN
BM
LPF
REC AMP
41
VR8001
REC C
BPF
REC
PB
AMP
43
VV/EE
49
Q8001
Q8002
BUFFER
IC8002
4
COMB FILTER
1
Q8009
AMP
PB

IC3001-36 REC
1.3Vp-p (V•RATE) COLOUR BAR

IC3001-53 REC
4.4Vp-p (H•RATE) COLOUR BAR

IC3001-37 PLAY
0.4Vp-p (V•RATE) COLOUR BAR

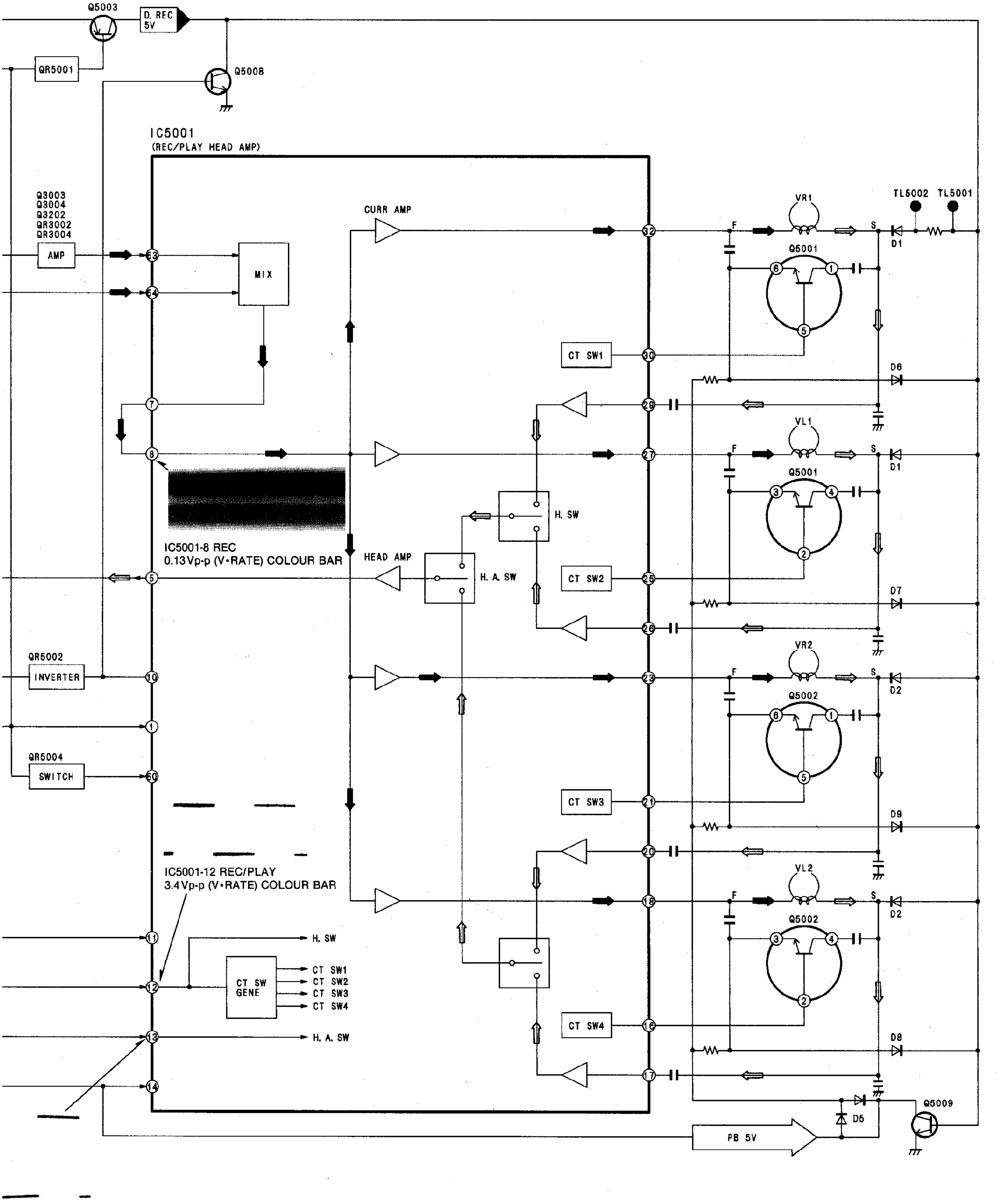
IC8001-24 REC/PLAY
4.8Vp-p (10msec./div.)
COLOUR BAR

IC5001
0.13Vp

IC5001
3.4Vp-

IC8001-41 REC
0.7Vp-p (H•RATE) COLOUR BAR

IC5001-13 REC/PLAY
3.2Vp-p (10msec./div.) COLOUR BAR

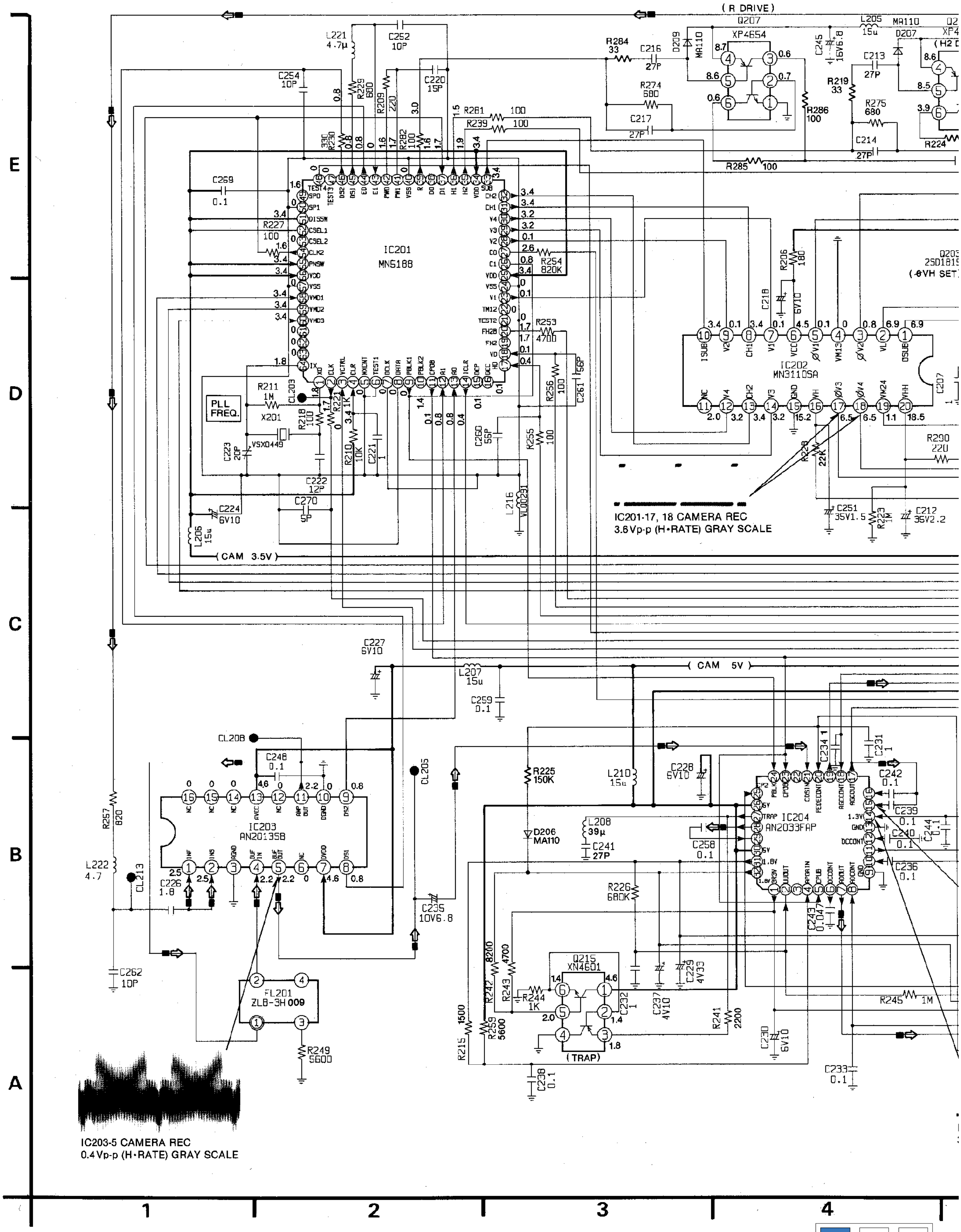

Q5003
D. REC 5V
QR5001
Q5008
IC5001
(REC/PLAY HEAD AMP)
Q3003
Q3004
Q3202
QR3002
QR3004
AMP
MIX
CURR AMP
CT SW1
CT SW2
CT SW3
CT SW4
H. SW
HEAD AMP
H. A. SW
IC5001-8 REC
0.13Vp-p (V•RATE) COLOUR BAR
QR5002
INVERTER
QR5004
SWITCH
IC5001-12 REC/PLAY
3.4Vp-p (V•RATE) COLOUR BAR
CT SW GENE
CT SW1
CT SW2
CT SW3
CT SW4
H. SW
H. A. SW
VR1
VL1
VR2
VL2
Q5001
Q5002
TL5002
TL5001
D1
D2
D5
D6
D7
D8
D9
F
S
Q5009
PB 5V
33
34
32
30
29
27
26
25
23
21
20
18
17
16
14
13
12
11
10
8
7
5
1
60
6
3
4
2

REC/PLAY
0msec./div.) COLOUR BAR

Next Page:

3-7. CCD DRIVE SCHEMATIC DIAGRAM

⇦■ VIDEO SIGNA

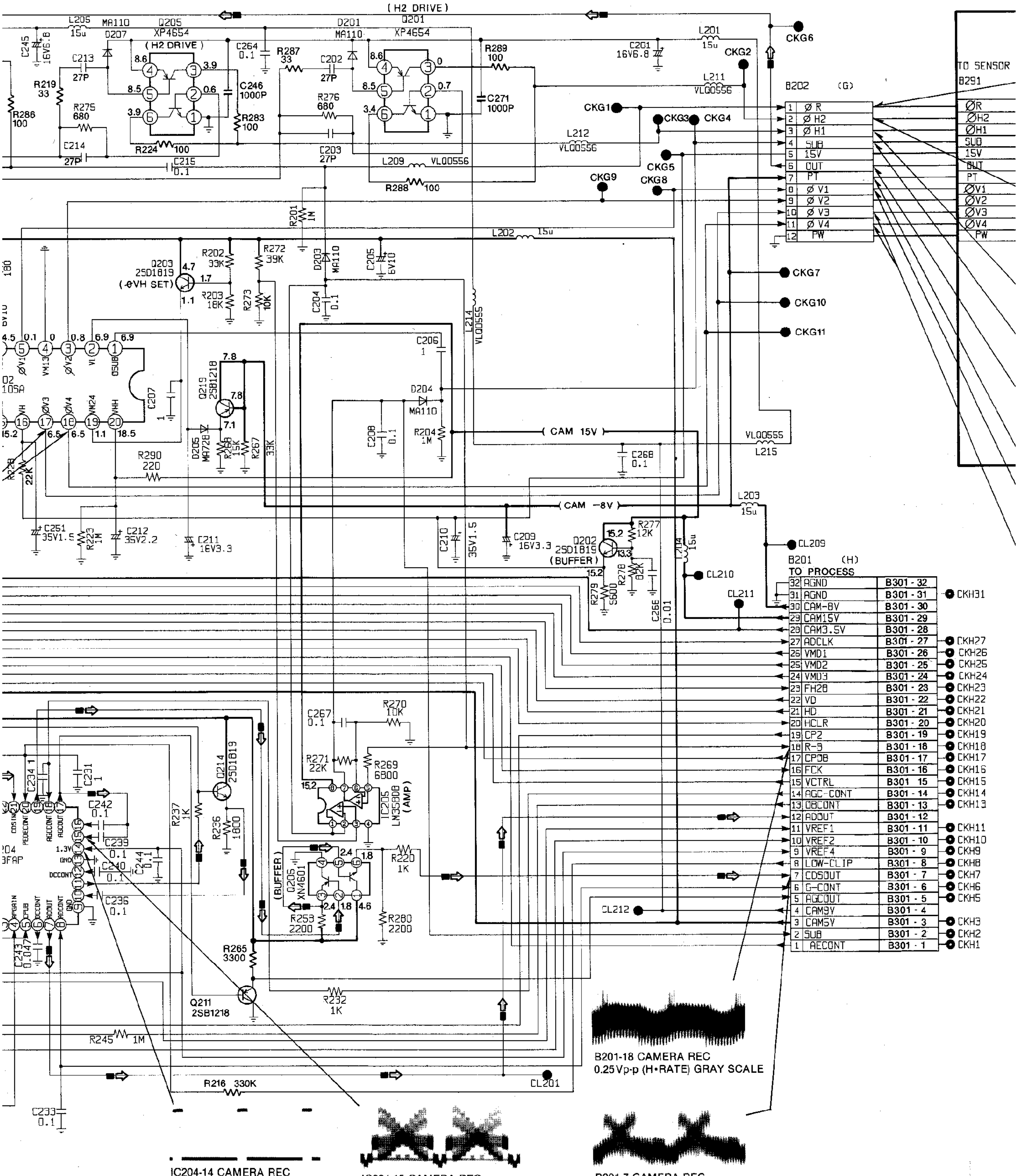


(R DRIVE)
Q207
XP4654
MA110
D209
L205 15u
D207
(H2 D
R284 33
C216 27P
R274 680
C217 27P
R286 100
C245 16V6.8
C213 27P
R219 33
R275 680
C214 27P
R224
R285 100
L221 4.7µ
C252 10P
C254 10P
R229 680
R209 220
C220 15P
R282 100
R230 330
R281 100
R239 100
C269 0.1
R227 100
IC201
MN5188
R254 820K
R253 4700
R206 180
C218 6V10
Q203 2SD1815
(-6VH SET
IC202
MN3110SA
C207
R290 220
R228 22K
C251 35V1.5
R223 1M
C212 35V2.2
PLL FREQ.
R211 1M
CL203
R218 100
R221 1.7
X201
VSXO449
C223 20P
R210 10K
C221 1
C222 12P
C270 5P
C260 56P
R255 100
R256 100
C261 56P
L216 VL00291
C224 6V10
L206 15u
(CAM 3.5V)
C227 6V10
L207 15u
C259 0.1
(CAM 5V)
CL208
C246 0.1
IC203
AN2013SB
CL205
R225 150K
L210 15u
C228 6V10
C234 1
C231 1
C242 0.1
C239 0.1
C240 0.1
C244
C236 0.1
IC204
AN2033FAP
D206 MA110
L208 39µ
C241 27P
C258 0.1
R226 680K
C243 0.047
R257 820
L222 4.7
CL213
C226 1.8
C235 10V6.8
C262 10P
FL201
ZLB-3H 009
R249 5600
R242 8200
R243 4700
Q215
XN4601
R244 1K
C232 1
C237 4V10
C229 4V33
R241 2200
C230 6V10
R245 1M
R215 1500
R259 5600
(TRAP)
C238 0.1
C233 0.1
E
D
C
B
A
1
2
3
4

IC201-17, 18 CAMERA REC
3.6Vp-p (H·RATE) GRAY SCALE

IC203-5 CAMERA REC
0.4Vp-p (H·RATE) GRAY SCALE

■ VIDEO SIGNAL

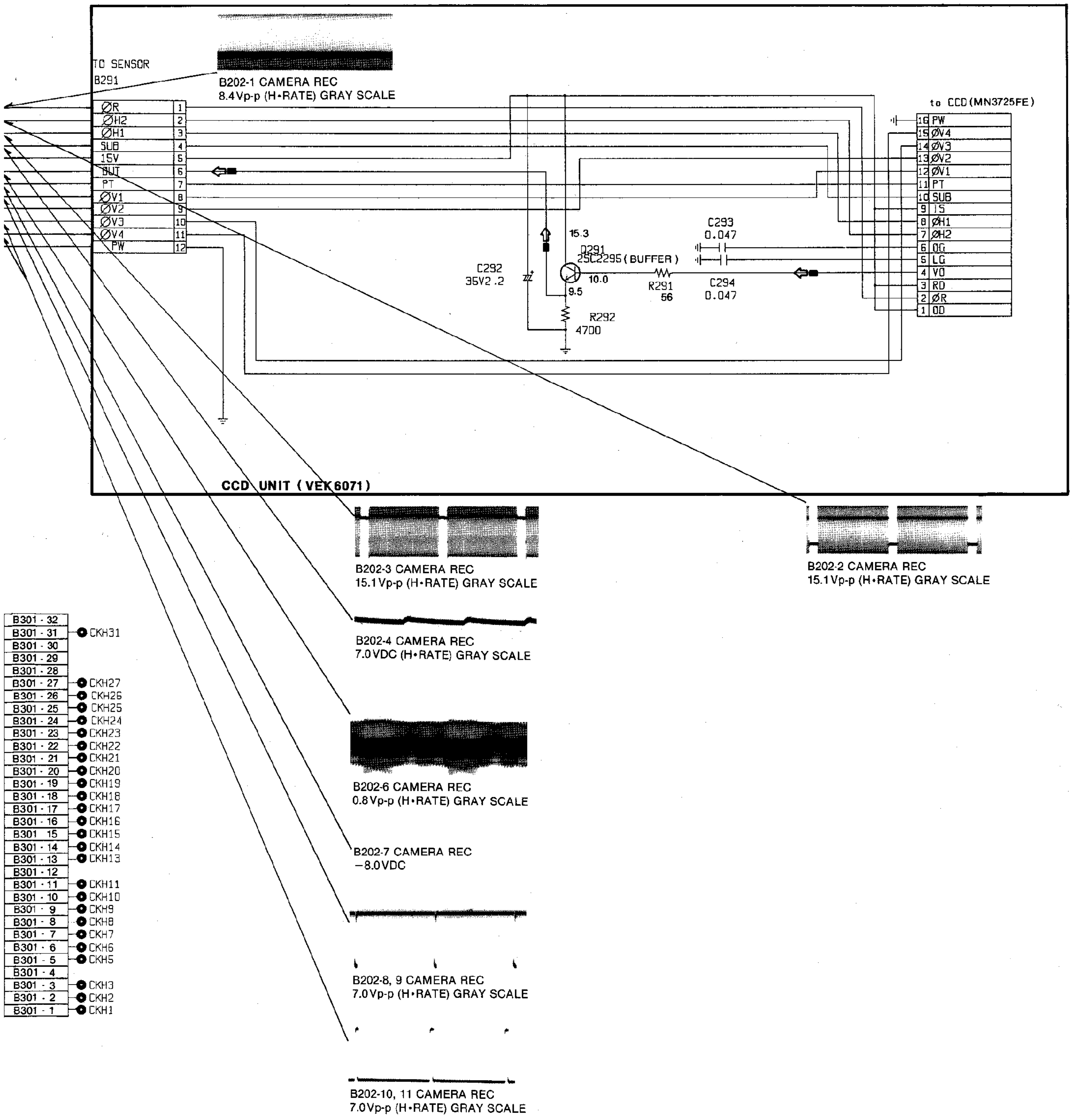

(H2 DRIVE)
L205 15u
MA110 D207
Q205 XP4654
(H2 DRIVE)
C245 16V6.8
C213 27P
R219 33
R286 100
R275 680
C214 27P
R224 100
C215 0.1
C264 0.1
C246 1000P
R283 100
R287 33
C202 27P
R276 680
C203 27P
D201 MA110
Q201 XP4654
R289 100
C271 1000P
L209 VLQ0556
R288 100
C201 16V6.8
L201 15u
L211 VLQ0556
L212 VLQ0556
CKG1
CKG2
CKG3
CKG4
CKG5
CKG6
CKG7
CKG8
CKG9
CKG10
CKG11
B202 (G)
1 ØR
2 ØH2
3 ØH1
4 SUB
5 15V
6 OUT
7 PT
8 ØV1
9 ØV2
10 ØV3
11 ØV4
12 PW
TO SENSOR B291
ØR
ØH2
ØH1
SUB
15V
OUT
PT
ØV1
ØV2
ØV3
ØV4
PW
R201 1M
L202 15u
Q203 2SD1819 (-ØVH SET)
R202 33K
R272 39K
R203 16K
R273 10K
D203 MA110
C205 6V10
C204 0.1
L214 VLQ0555
C206 1
D204 MA110
C208 0.1
R204 1M
CAM 15V
C268 0.1
VLQ0555 L215
Q219 2SB1218
D205 MA728
R268 15K
R267 33K
C207 1
R290 220
R228 22K
C251 35V1.5
R223 1M
C212 35V2.2
C211 16V3.3
CAM -8V
L203 15u
C210 35V1.5
C209 16V3.3
Q202 2SD1819 (BUFFER)
R277 12K
R278 82K
R279 5600
C266 0.01
L214 15u
CL209
CL210
CL211
CL212
B201 (H) TO PROCESS
32 AGND B301-32
31 AGND B301-31 CKH31
30 CAM-8V B301-30
29 CAM15V B301-29
28 CAM3.5V B301-28
27 ADCLK B301-27 CKH27
26 VMD1 B301-26 CKH26
25 VMD2 B301-25 CKH25
24 VMD3 B301-24 CKH24
23 FH28 B301-23 CKH23
22 VD B301-22 CKH22
21 HD B301-21 CKH21
20 HCLR B301-20 CKH20
19 CP2 B301-19 CKH19
18 R-5 B301-18 CKH18
17 CPOB B301-17 CKH17
16 FCK B301-16 CKH16
15 VCTRL B301-15 CKH15
14 AGC-CONT B301-14 CKH14
13 OBCONT B301-13 CKH13
12 ADOUT B301-12
11 VREF1 B301-11 CKH11
10 VREF2 B301-10 CKH10
9 VREF4 B301-9 CKH9
8 LOW-CLIP B301-8 CKH8
7 CDSOUT B301-7 CKH7
6 G-CONT B301-6 CKH6
5 AGCOUT B301-5 CKH5
4 CAM9V B301-4
3 CAM5V B301-3 CKH3
2 SUB B301-2 CKH2
1 AECONT B301-1 CKH1
C267 0.1
R270 10K
R271 22K
R269 6800
IC205 LM358OB (AMP)
Q205 XN4601 (BUFFER)
R220 1K
R253 2200
R280 2200
R265 3300
Q211 2SB1218
R232 1K
Q214 2SD1819
R237 1K
R236 1800
C231 1
C234 1
C242 0.1
C239 0.1
C240 0.1
C244 0.1
C236 0.1
C243 0.047
R245 1M
R216 330K
CL201
C233 0.1

B201-18 CAMERA REC
0.25Vp-p (H•RATE) GRAY SCALE

IC204-14 CAMERA REC
3.6Vp-p (H•RATE) GRAY SCALE

IC204-15 CAMERA REC
1.5Vp-p (H•RATE) GRAY SCALE

B201-7 CAMERA REC
0.2Vp-p (H•RATE) GRAY SCALE

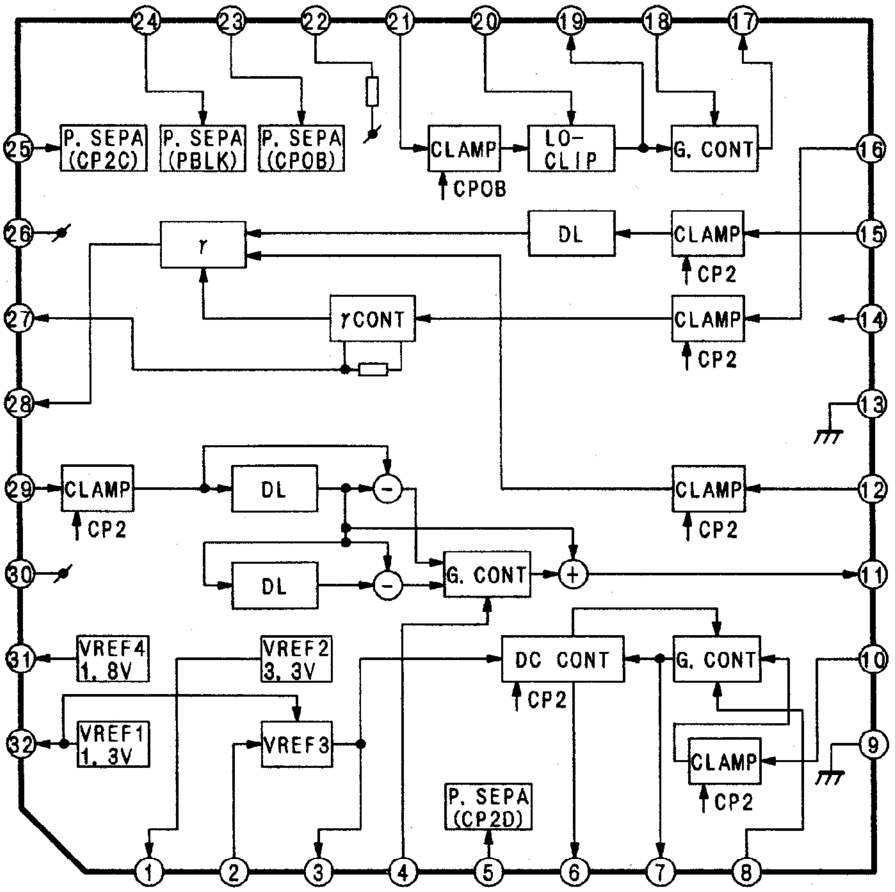

TO SENSOR
B291
B202-1 CAMERA REC
8.4Vp-p (H•RATE) GRAY SCALE
ØR 1
ØH2 2
ØH1 3
SUB 4
15V 5
OUT 6
PT 7
ØV1 8
ØV2 9
ØV3 10
ØV4 11
PW 12
to CCD (MN3725FE)
16 PW
15 ØV4
14 ØV3
13 ØV2
12 ØV1
11 PT
10 SUB
9 IS
8 ØH1
7 ØH2
6 OG
5 LG
4 VO
3 RD
2 ØR
1 OD
C293
0.047
15.3
Q291
2SC2295 (BUFFER)
C292
35V2.2
10.0
9.5
R291
56
C294
0.047
R292
4700
CCD UNIT (VEK6071)
B202-3 CAMERA REC
15.1Vp-p (H•RATE) GRAY SCALE
B202-2 CAMERA REC
15.1Vp-p (H•RATE) GRAY SCALE
B202-4 CAMERA REC
7.0VDC (H•RATE) GRAY SCALE
B202-6 CAMERA REC
0.8Vp-p (H•RATE) GRAY SCALE
B202-7 CAMERA REC
−8.0VDC
B202-8, 9 CAMERA REC
7.0Vp-p (H•RATE) GRAY SCALE
B202-10, 11 CAMERA REC
7.0Vp-p (H•RATE) GRAY SCALE
B301 · 32
B301 · 31 CKH31
B301 · 30
B301 · 29
B301 · 28
B301 · 27 CKH27
B301 · 26 CKH26
B301 · 25 CKH25
B301 · 24 CKH24
B301 · 23 CKH23
B301 · 22 CKH22
B301 · 21 CKH21
B301 · 20 CKH20
B301 · 19 CKH19
B301 · 18 CKH18
B301 · 17 CKH17
B301 · 16 CKH16
B301 · 15 CKH15
B301 · 14 CKH14
B301 · 13 CKH13
B301 · 12
B301 · 11 CKH11
B301 · 10 CKH10
B301 · 9 CKH9
B301 · 8 CKH8
B301 · 7 CKH7
B301 · 6 CKH6
B301 · 5 CKH5
B301 · 4
B301 · 3 CKH3
B301 · 2 CKH2
B301 · 1 CKH1

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE WITH AIM THE CAMERA AT THE LOGARITHMIC GRAY SCALE CHART.

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

IC204

AN2033FAP
AN2032FAP


P. SEPA (CP2C)
P. SEPA (PBLK)
P. SEPA (CPOB)
CLAMP
CPOB
LO-CLIP
G. CONT
γ
DL
CLAMP
CP2
γCONT
CLAMP
CP2
CLAMP
CP2
DL
-
CLAMP
CP2
DL
-
G. CONT
+
VREF4 1. 8V
VREF2 3. 3V
DC CONT
CP2
G. CONT
VREF1 1. 3V
VREF3
CLAMP
CP2
P. SEPA (CP2D)
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
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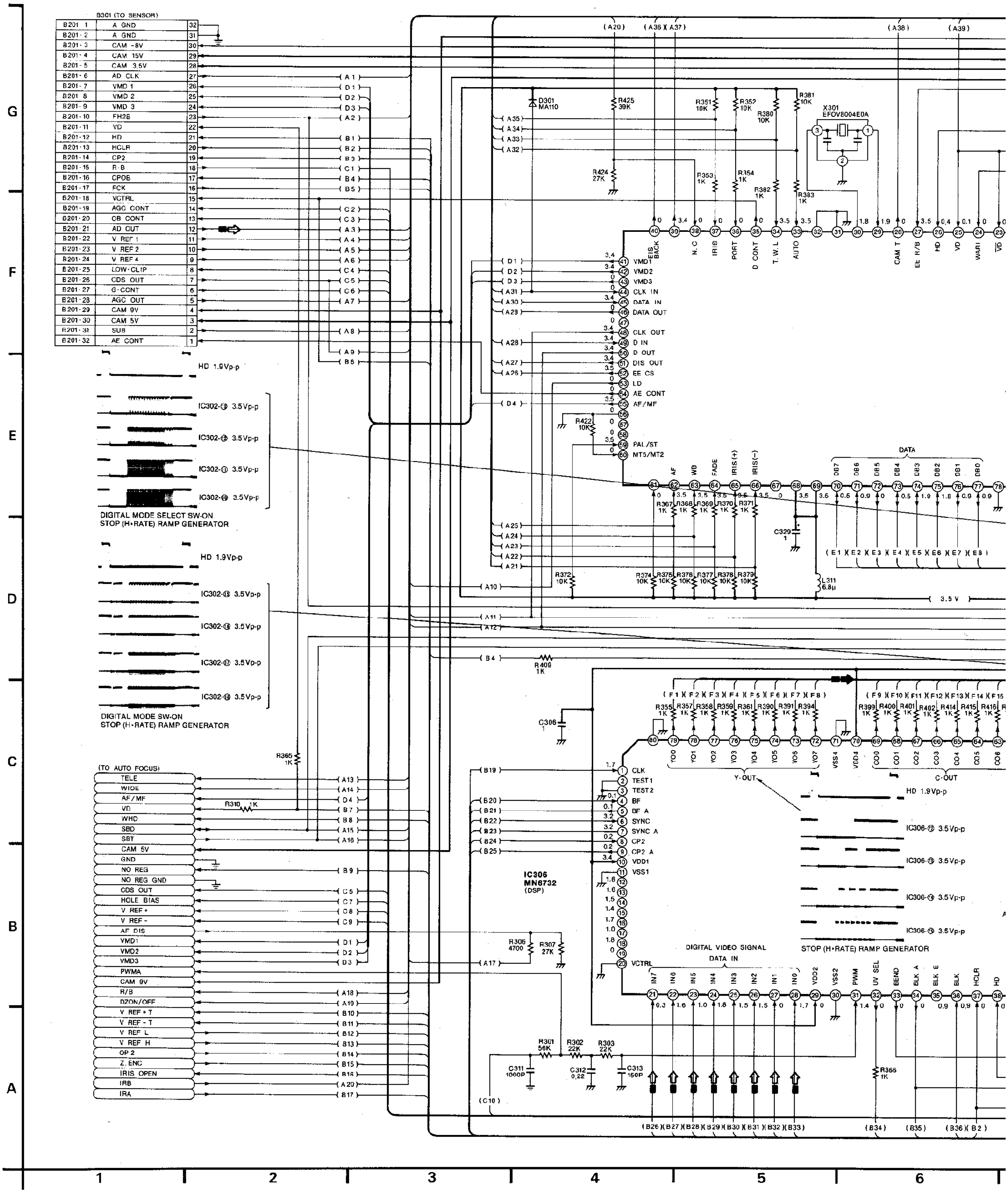
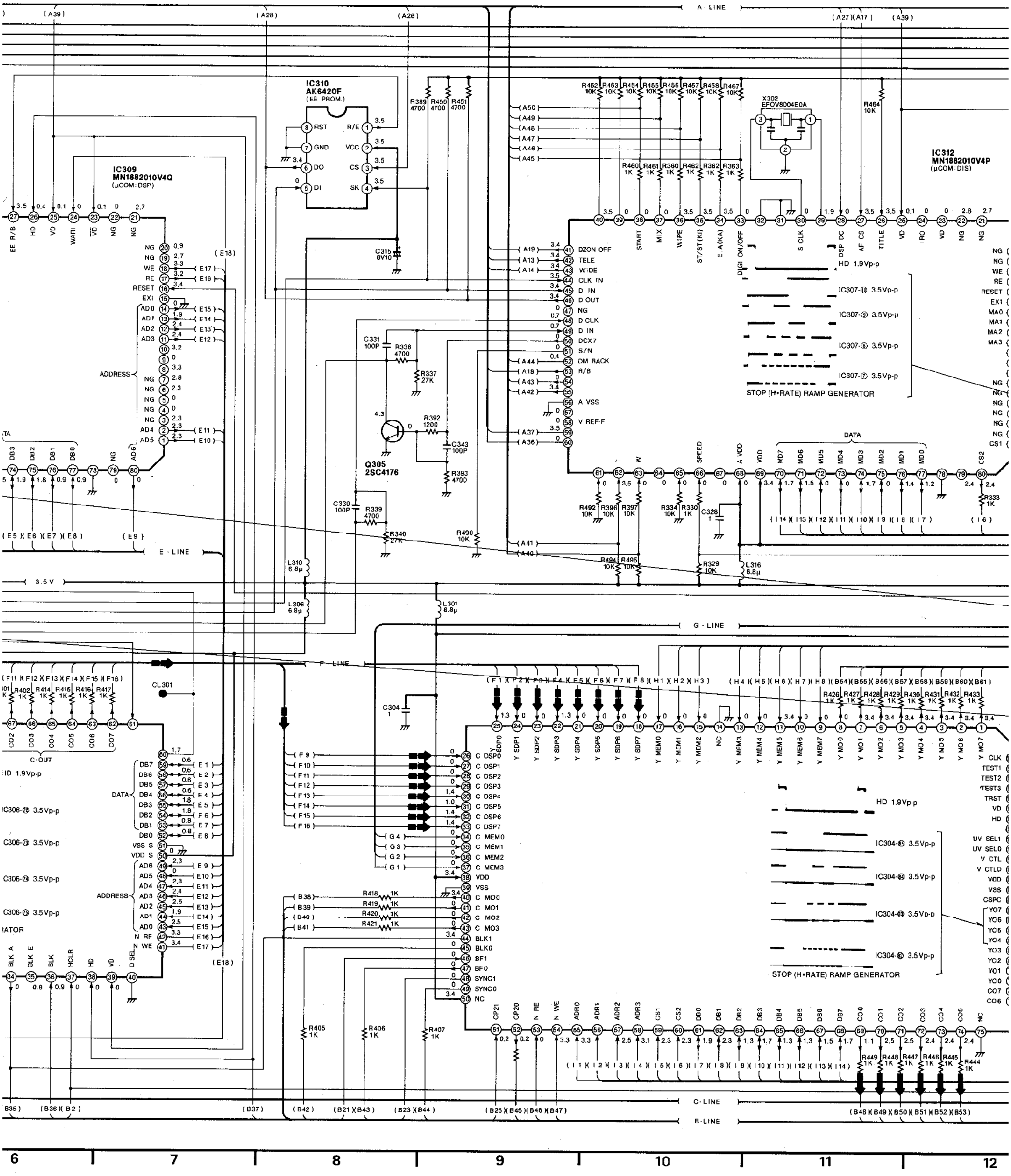
3-9. PROCESS, CAMERA OPERATION & CCD UNIT SCHEMATIC DIAGRAM

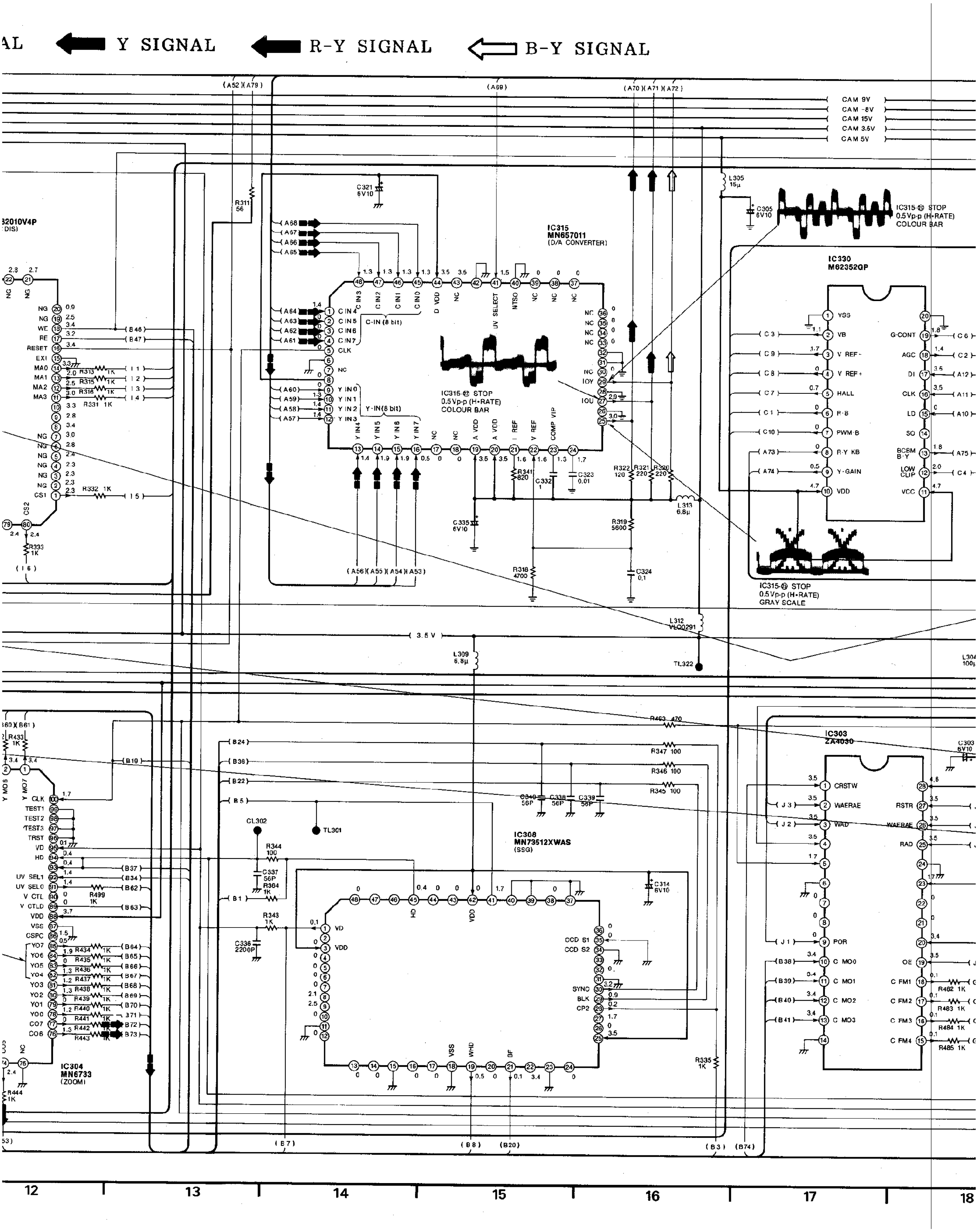

B301 (TO SENSOR)
B201-1 A GND 32
B201-2 A GND 31
B201-3 CAM -8V 30
B201-4 CAM 15V 29
B201-5 CAM 3.5V 28
B201-6 AD CLK 27
B201-7 VMD 1 26
B201-8 VMD 2 25
B201-9 VMD 3 24
B201-10 FH2B 23
B201-11 VD 22
B201-12 HD 21
B201-13 HCLR 20
B201-14 CP2 19
B201-15 R-B 18
B201-16 CPOB 17
B201-17 FCK 16
B201-18 VCTRL 15
B201-19 AGC CONT 14
B201-20 OB CONT 13
B201-21 AD OUT 12
B201-22 V REF 1 11
B201-23 V REF 2 10
B201-24 V REF 4 9
B201-25 LOW-CLIP 8
B201-26 CDS OUT 7
B201-27 G-CONT 6
B201-28 AGC OUT 5
B201-29 CAM 9V 4
B201-30 CAM 5V 3
B201-31 SUB 2
B201-32 AE CONT 1
HD 1.9Vp-p
IC302-③ 3.5Vp-p
IC302-② 3.5Vp-p
IC302-① 3.5Vp-p
IC302-⑩ 3.5Vp-p
DIGITAL MODE SELECT SW-ON
STOP (H-RATE) RAMP GENERATOR
HD 1.9Vp-p
IC302-⑬ 3.5Vp-p
IC302-⑮ 3.5Vp-p
IC302-⑰ 3.5Vp-p
IC302-⑱ 3.5Vp-p
DIGITAL MODE SW-ON
STOP (H-RATE) RAMP GENERATOR
(TO AUTO FOCUS)
TELE
WIDE
AF/MF
VD
WHD
SBD
SBT
CAM 5V
GND
NO REG
NO REG GND
CDS OUT
HOLE BIAS
V REF+
V REF-
AF DIS
VMD1
VMD2
VMD3
PWMA
CAM 9V
R/B
DZON/OFF
V REF+T
V REF-T
V REF L
V REF H
OP 2
Z. ENC
IRIS OPEN
IRB
IRA
D301 MA110
R425 39K
R424 27K
R351 10K
R352 10K
R380 10K
R381 10K
X301 EFOV8004E0A
R353 1K
R354 1K
R382 1K
R383 1K
EIS BACK
N.C
IRIS
PORT
D CONT
T.W.L
AUTO
CAM T
Et R/B
HD
VD
WARI
VD
VMD1
VMD2
VMD3
CLK IN
DATA IN
DATA OUT
CLK OUT
D IN
D OUT
DIS OUT
EE CS
LD
AE CONT
AF/MF
PAL/ST
MT5/MT2
R422 10K
AF
WB
FADE
IRIS(+)
IRIS(-)
DATA
DB7
DB6
DB5
DB4
DB3
DB2
DB1
DB0
R367 1K
R368 1K
R369 1K
R370 1K
R371 1K
C329 1
R372 10K
R374 10K
R375 10K
R376 10K
R377 10K
R378 10K
R379 10K
L311 6.8µ
3.5 V
R409 1K
C306 1
R355 1K
R357 1K
R358 1K
R359 1K
R361 1K
R390 1K
R391 1K
R394 1K
R399 1K
R400 1K
R401 1K
R402 1K
R414 1K
R415 1K
R416 1K
YO0
YO1
YO2
YO3
YO4
YO5
YO6
YO7
VSS4
VDD4
CO0
CO1
CO2
CO3
CO4
CO5
CO6
Y-OUT
C-OUT
CLK
TEST1
TEST2
BF
BF A
SYNC
SYNC A
CP2
CP2 A
VDD1
VSS1
VCTRL
IC306
MN6732
(DSP)
R365 1K
R310 1K
R306 4700
R307 27K
DIGITAL VIDEO SIGNAL
DATA IN
IN7
IN6
IN5
IN4
IN3
IN2
IN1
IN0
VDD2
VSS2
PWM
UV SEL
BEND
BLK A
BLK E
BLK
HCLR
HD
HD 1.9Vp-p
IC306-㉒ 3.5Vp-p
IC306-㉝ 3.5Vp-p
IC306-㉞ 3.5Vp-p
IC306-㉟ 3.5Vp-p
STOP (H-RATE) RAMP GENERATOR
R301 56K
R302 22K
R303 22K
C311 1000P
C312 0.22
C313 150P
R366 1K
G
F
E
D
C
B
A
1
2
3
4
5
6

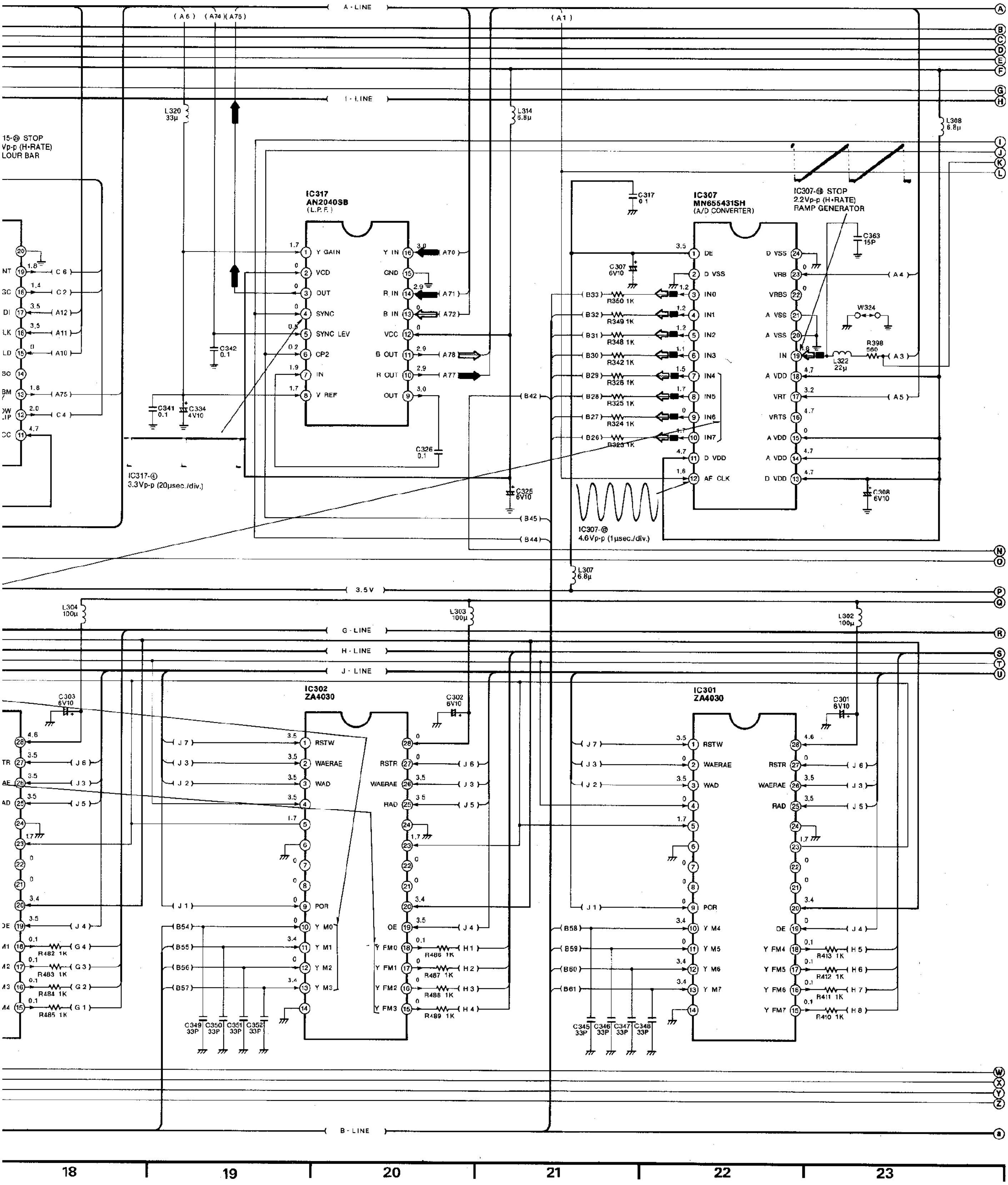
GRAM

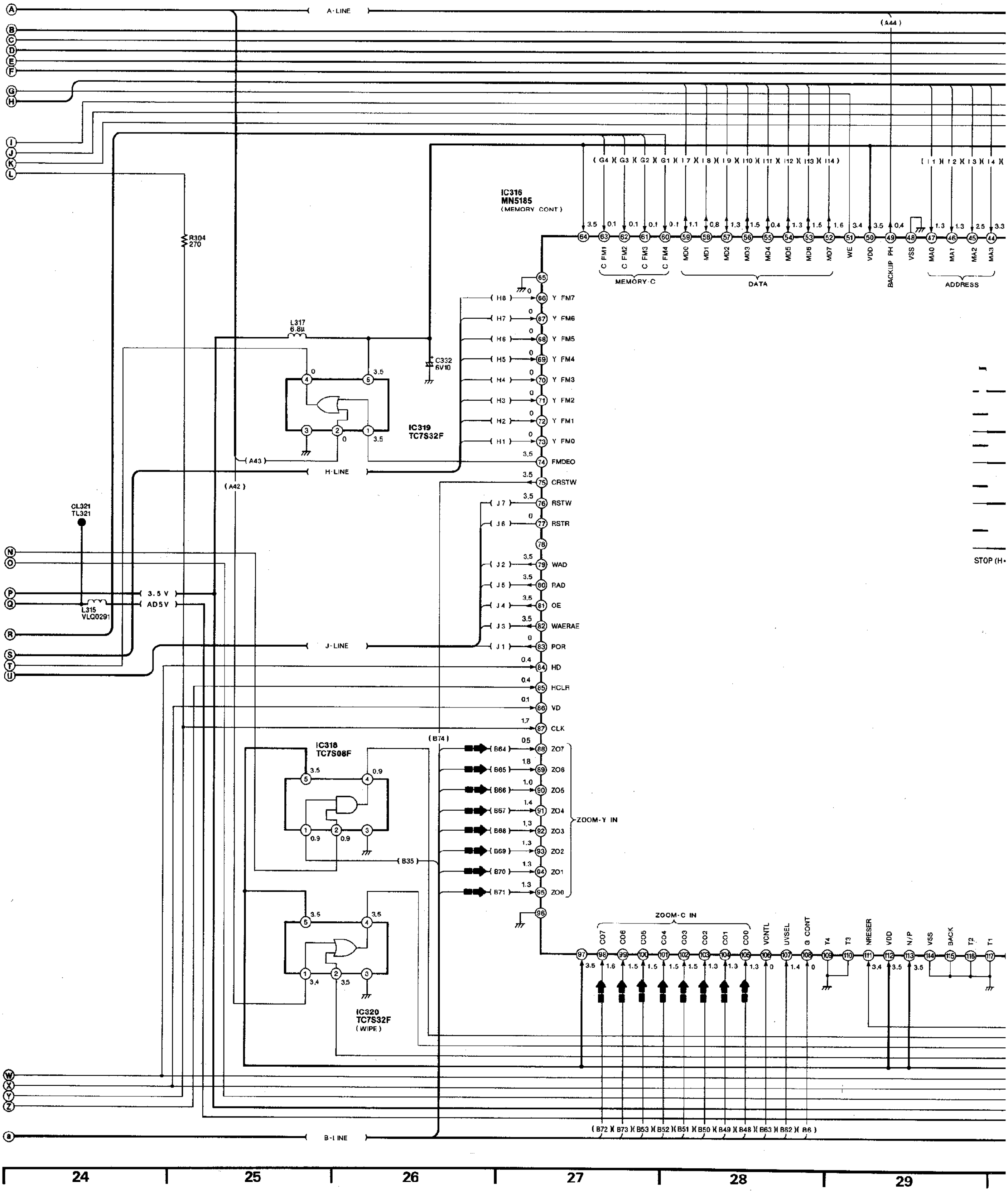
⇦■ PRE VIDEO SIGNAL ⬅■ DIGITAL Y SIGNAL ⬅■ DIGITAL C SIGNAL

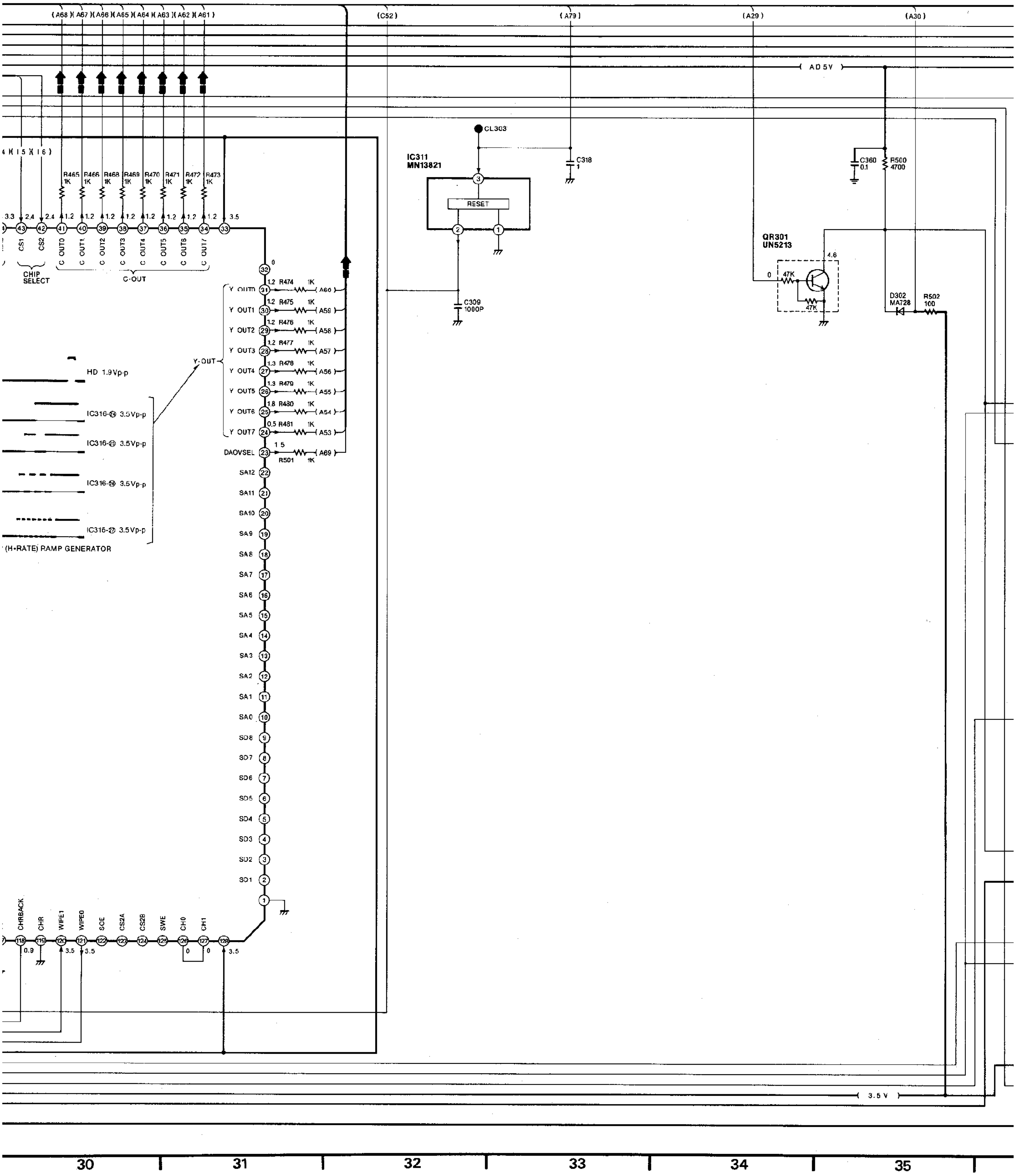


A-LINE
IC310
AK6420F
(EE PROM.)
RST
GND
DO
DI
R/E
VCC
CS
SK
R389 4700
R450 4700
R451 4700
IC309
MN1882010V4Q
(µCOM: DSP)
EE R/B
HD
VD
WAIT
ADDRESS
C315 6V10
C331 100P
R338 4700
R337 27K
R392 1200
C343 100P
R393 4700
Q305
2SC4176
C330 100P
R339 4700
R340 27K
R400 10K
L310 6.8µ
L306 6.8µ
L301 6.8µ
DZON OFF
TELE
WIDE
CLK IN
D IN
D OUT
D CLK
DCX7
S/N
DM RACK
R/B
A VSS
V REF·F
R452 10K
R453 10K
R454 10K
R455 10K
R456 10K
R457 10K
R458 10K
R467 10K
R460 1K
R461 1K
R360 1K
R462 1K
R362 1K
R363 1K
X302
EFOV8004E0A
R464 10K
IC312
MN1882010V4P
(µCOM: DIS)
START
MIX
WIPE
ST/ST(KI)
E. A(KA)
DIGI ON/OFF
S CLK
DSP DC
AF CS
TITLE
HD 1.9Vp-p
IC307-⑩ 3.5Vp-p
IC307-③ 3.5Vp-p
IC307-⑤ 3.5Vp-p
IC307-⑦ 3.5Vp-p
STOP (H-RATE) RAMP GENERATOR
DATA
SPEED
A VDD
R492 10K
R396 10K
R397 10K
R334 10K
R330 1K
C328 1
R333 1K
R494 10K
R495 10K
R329 10K
L316 6.8µ
E-LINE
3.5 V
G-LINE
F-LINE
CL301
C-OUT
R402 1K
R414 1K
R415 1K
R416 1K
R417 1K
C304 1
C DSP0
C DSP1
C DSP2
C DSP3
C DSP4
C DSP5
C DSP6
C DSP7
C MEM0
C MEM1
C MEM2
C MEM3
VDD
VSS
C MO0
C MO1
C MO2
C MO3
BLK1
BLK0
BF1
BF0
SYNC1
SYNC0
NC
R418 1K
R419 1K
R420 1K
R421 1K
R405 1K
R406 1K
R407 1K
HD 1.9Vp-p
IC306-⑫ 3.5Vp-p
IC306-⑬ 3.5Vp-p
IC306-⑭ 3.5Vp-p
IC306-⑮ 3.5Vp-p
IC304-㊸ 3.5Vp-p
IC304-㊹ 3.5Vp-p
IC304-㊺ 3.5Vp-p
IC304-㊻ 3.5Vp-p
Y SDP0
Y SDP1
Y SDP2
Y SDP3
Y SDP4
Y SDP5
Y SDP6
Y SDP7
Y MEM0
Y MEM1
Y MEM2
Y MEM3
Y MEM4
Y MEM5
Y MEM6
Y MEM7
Y MO0
Y MO1
Y MO2
Y MO3
Y MO4
Y MO5
Y MO6
Y MO7
R426 1K
R427 1K
R428 1K
R429 1K
R430 1K
R431 1K
R432 1K
R433 1K
R449 1K
R448 1K
R447 1K
R446 1K
R445 1K
R444 1K
CLK
TEST1
TEST2
TEST3
TRST
UV SEL1
UV SEL0
V CTL
V CTLD
CSPC
CP21
CP20
N RE
N WE
ADR0
ADR1
ADR2
ADR3
C-LINE
B-LINE
6
7
8
9
10
11
12

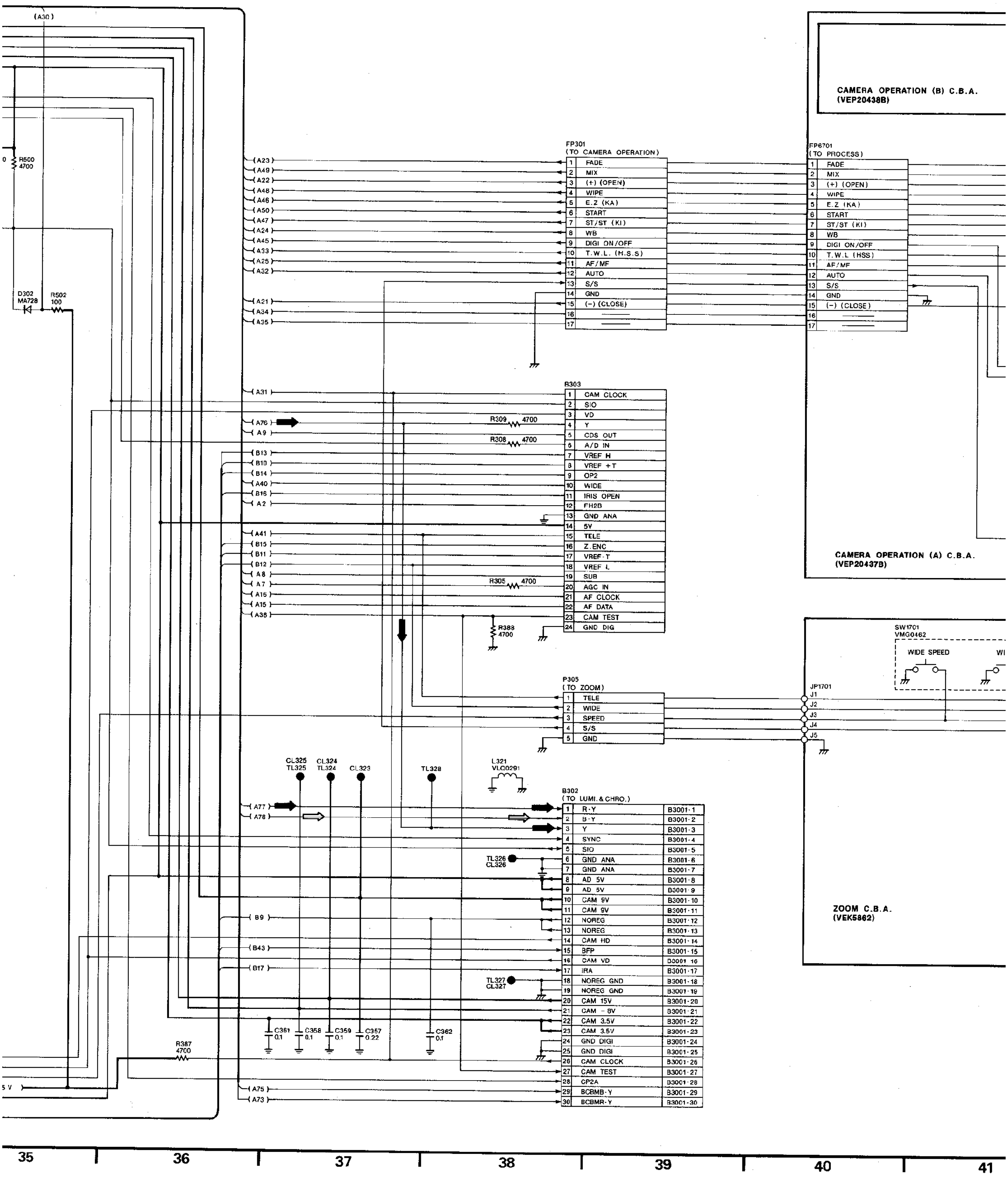

AL
Y SIGNAL
R-Y SIGNAL
B-Y SIGNAL
CAM 9V
CAM -8V
CAM 15V
CAM 3.5V
CAM 5V
IC315
MN657011
(D/A CONVERTER)
C-IN (8 bit)
Y-IN (8 bit)
IC315-㉗ STOP
0.5Vp-p (H-RATE)
COLOUR BAR
IC315-㉙ STOP
0.5Vp-p (H-RATE)
COLOUR BAR
IC315-㉕ STOP
0.5Vp-p (H-RATE)
GRAY SCALE
IC330
M62352GP
IC304
MN6733
(ZOOM)
IC308
MN73512XWAS
(SSG)
IC303
ZA4030
L305 15µ
C305 6V10
C321 6V10
R311 56
L313 6.8µ
L312 VLQ0291
L309 6.8µ
TL322
TL301
CL302
3.5V
R318 4700
C324 0.1
R319 5600
C335 6V10
R463 470
R347 100
R346 100
R345 100
C314 6V10
R335 1K
12
13
14
15
16
17
18


A-LINE
I-LINE
3.5V
G-LINE
H-LINE
J-LINE
B-LINE
(A6) (A74) (A76)
(A1)
L320 33µ
L314 6.8µ
L308 6.8µ
L307 6.8µ
L304 100µ
L303 100µ
L302 100µ
15-⑳ STOP
Vp-p (H-RATE)
LOUR BAR
IC317
AN2040SB
(L.P.F.)
Y GAIN
VCD
OUT
SYNC
SYNC LEV
CP2
IN
V REF
Y IN
GND
R IN
B IN
VCC
B OUT
R OUT
OUT
C342 0.1
C341 0.1
C334 4V10
C326 0.1
C325 6V10
IC317-④
3.3Vp-p (20µsec./div.)
C317 0.1
IC307
MN655431SH
(A/D CONVERTER)
OE
D VSS
IN0
IN1
IN2
IN3
IN4
IN5
IN6
IN7
D VDD
AF CLK
D VSS
VRB
VRBS
A VSS
A VSS
IN
A VDD
VRT
VRTS
A VDD
A VDD
D VDD
C307 6V10
R350 1K
R349 1K
R348 1K
R342 1K
R326 1K
R325 1K
R324 1K
R323 1K
IC307-⑲ STOP
2.2Vp-p (H-RATE)
RAMP GENERATOR
C363 15P
W324
R398 560
L322 22µ
C308 6V10
IC307-⑫
4.6Vp-p (1µsec./div.)
IC302
ZA4030
IC301
ZA4030
C303 6V10
C302 6V10
C301 6V10
RSTW
WAERAE
WAD
POR
Y M0
Y M1
Y M2
Y M3
Y M4
Y M5
Y M6
Y M7
RSTR
WAERAE
RAD
OE
Y FM0
Y FM1
Y FM2
Y FM3
Y FM4
Y FM5
Y FM6
Y FM7
R482 1K
R483 1K
R484 1K
R485 1K
R486 1K
R487 1K
R488 1K
R489 1K
R413 1K
R412 1K
R411 1K
R410 1K
C349 33P
C350 33P
C351 33P
C352 33P
C345 33P
C346 33P
C347 33P
C348 33P
A70
A71
A72
A78
A77
A75
A12
A11
A10
A4
A3
A5
C6
C2
C4
B33
B32
B31
B30
B29
B28
B27
B26
B42
B45
B44
B54
B55
B56
B57
B58
B59
B60
B61
J7
J3
J2
J1
J6
J5
J4
G4
G3
G2
G1
H1
H2
H3
H4
H5
H6
H7
H8
A
B
C
D
E
F
G
H
I
J
K
L
N
O
P
Q
R
S
T
U
W
X
Y
Z
a
18
19
20
21
22
23

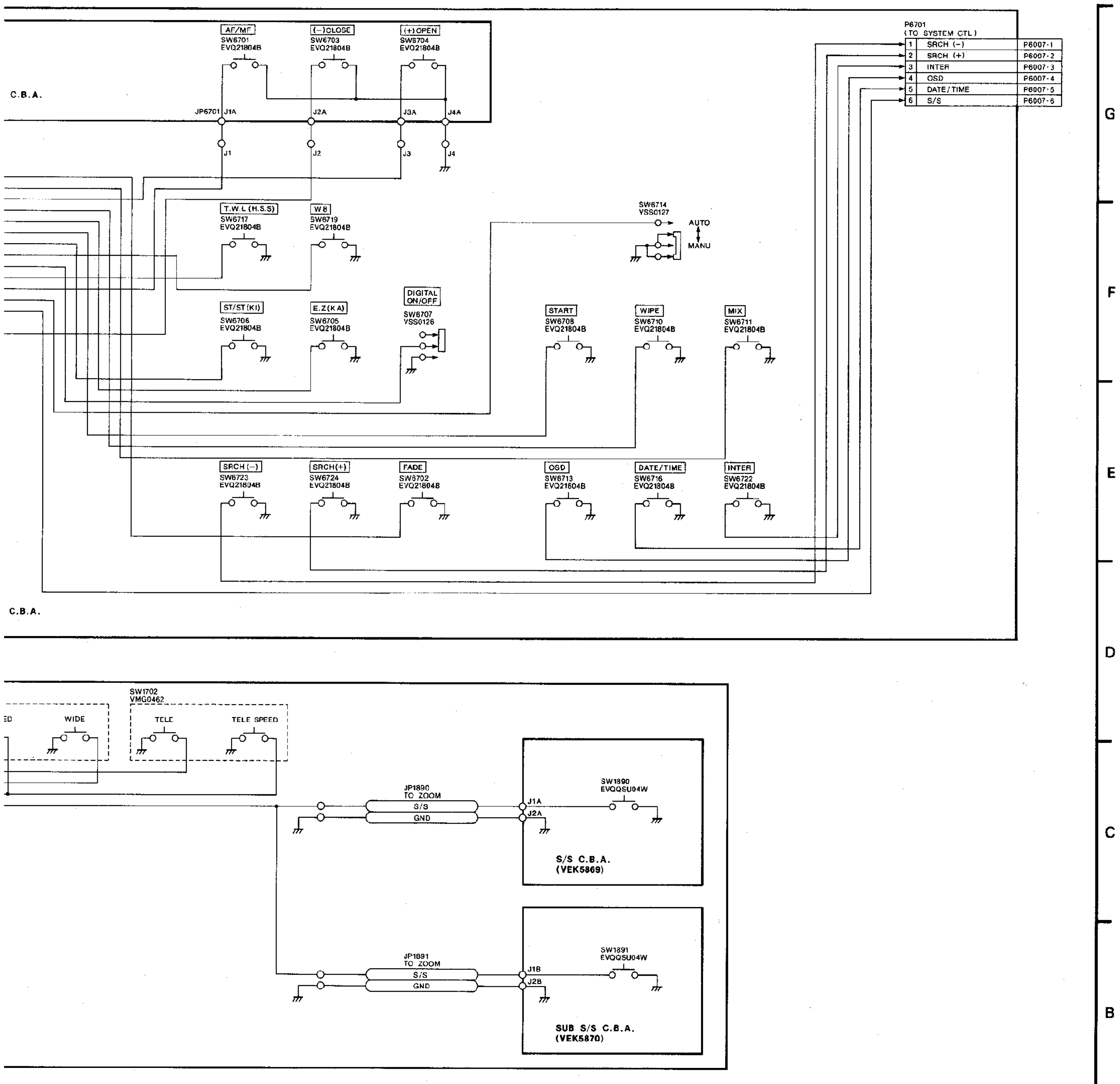

A-LINE
H-LINE
J-LINE
B-I LINE
(A44)
(A43)
(A42)
IC316
MN5185
(MEMORY CONT)
(G4)(G3)(G2)(G1)(I 7)(I 8)(I 9)(I10)(I11)(I12)(I13)(I14)
(I 1)(I 2)(I 3)(I 4)
C FM1
C FM2
C FM3
C FM4
MD0
MD1
MD2
MD3
MD4
MD5
MD6
MD7
WE
VDD
BACKUP PH
VSS
MA0
MA1
MA2
MA3
MEMORY-C
DATA
ADDRESS
Y FM7
Y FM6
Y FM5
Y FM4
Y FM3
Y FM2
Y FM1
Y FM0
FMDEO
CRSTW
RSTW
RSTR
WAD
RAD
OE
WAERAE
POR
HD
HCLR
VD
CLK
ZO7
ZO6
ZO5
ZO4
ZO3
ZO2
ZO1
ZO0
ZOOM-Y IN
ZOOM-C IN
CO7
CO6
CO5
CO4
CO3
CO2
CO1
CO0
VCNTL
UVSEL
G CONT
T4
T3
NRESER
VDD
N/P
VSS
BACK
T2
T1
STOP (H
R304
270
L317
6.8µ
C332
6V10
IC319
TC7S32F
IC318
TC7S08F
IC320
TC7S32F
(WIPE)
CL321
TL321
L315
VLQ0291
3.5 V
AD5V
(B74)
(B35)
(B64)
(B65)
(B66)
(B67)
(B68)
(B69)
(B70)
(B71)
(H8)
(H7)
(H6)
(H5)
(H4)
(H3)
(H2)
(H1)
(J7)
(J6)
(J2)
(J5)
(J4)
(J3)
(J1)
(B72)(B73)(B53)(B52)(B51)(B50)(B49)(B48)(B63)(B62)(B6)
A
B
C
D
E
F
G
H
I
J
K
L
N
O
P
Q
R
S
T
U
W
X
Y
Z
a
24
25
26
27
28
29



(A68)(A67)(A66)(A65)(A64)(A63)(A62)(A61)
(C52)
(A79)
(A29)
(A30)
AD 5V
CL303
C318 1
IC311 MN13821
RESET
C309 1000P
C360 0.1
R500 4700
QR301 UN5213
4.6
47K
47K
D302 MA728
R502 100
R465 1K R466 1K R468 1K R469 1K R470 1K R471 1K R472 1K R473 1K
(15)(16)
3.3 2.4 2.4 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 3.5
CS1 CS2 C OUT0 C OUT1 C OUT2 C OUT3 C OUT4 C OUT5 C OUT6 C OUT7
CHIP SELECT
C-OUT
Y-OUT
Y OUT0 R474 1K (A60)
Y OUT1 R475 1K (A59)
Y OUT2 R476 1K (A58)
Y OUT3 R477 1K (A57)
Y OUT4 R478 1K (A56)
Y OUT5 R479 1K (A55)
Y OUT6 R480 1K (A54)
Y OUT7 R481 1K (A53)
DAOVSEL R501 1K (A69)
SA12 SA11 SA10 SA9 SA8 SA7 SA6 SA5 SA4 SA3 SA2 SA1 SA0
SD8 SD7 SD6 SD5 SD4 SD3 SD2 SD1
HD 1.9Vp-p
IC316-㉔ 3.5Vp-p
IC316-㉕ 3.5Vp-p
IC316-㉖ 3.5Vp-p
IC316-㉗ 3.5Vp-p
(H-RATE) RAMP GENERATOR
CHRBACK CHR WIPE1 WIPE0 SOE CS2A CS2B SWE CH0 CH1
0.9 3.5 3.5 0 0 3.5
3.5 V
30 31 32 33 34 35



(A30)
R500 4700
D302 MA728
R502 100
FP301 (TO CAMERA OPERATION)
1 FADE
2 MIX
3 (+) (OPEN)
4 WIPE
5 E.Z (KA)
6 START
7 ST/ST (KI)
8 WB
9 DIGI ON/OFF
10 T.W.L. (H.S.S)
11 AF/MF
12 AUTO
13 S/S
14 GND
15 (−) (CLOSE)
16
17
(A23) (A49) (A22) (A48) (A46) (A50) (A47) (A24) (A45) (A33) (A25) (A32) (A21) (A34) (A35)
CAMERA OPERATION (B) C.B.A. (VEP20438B)
FP6701 (TO PROCESS)
1 FADE
2 MIX
3 (+) (OPEN)
4 WIPE
5 E.Z (KA)
6 START
7 ST/ST (KI)
8 WB
9 DIGI ON/OFF
10 T.W.L (HSS)
11 AF/MF
12 AUTO
13 S/S
14 GND
15 (−) (CLOSE)
16
17
CAMERA OPERATION (A) C.B.A. (VEP20437B)
B303
1 CAM CLOCK
2 SIO
3 VD
4 Y
5 CDS OUT
6 A/D IN
7 VREF H
8 VREF +T
9 OP2
10 WIDE
11 IRIS OPEN
12 FH2B
13 GND ANA
14 5V
15 TELE
16 Z.ENC
17 VREF-T
18 VREF L
19 SUB
20 AGC IN
21 AF CLOCK
22 AF DATA
23 CAM TEST
24 GND DIG
(A31) (A76) (A9) (B13) (B10) (B14) (A40) (B16) (A2) (A41) (B15) (B11) (B12) (A8) (A7) (A16) (A15) (A38)
R309 4700
R308 4700
R305 4700
R388 4700
P305 (TO ZOOM)
1 TELE
2 WIDE
3 SPEED
4 S/S
5 GND
SW1701 VMG0462
WIDE SPEED
JP1701
J1 J2 J3 J4 J5
ZOOM C.B.A. (VEK5862)
CL325 TL325
CL324 TL324
CL323
TL328
L321 VLQ0291
B302 (TO LUMI. & CHRO.)
1 R-Y B3001-1
2 B-Y B3001-2
3 Y B3001-3
4 SYNC B3001-4
5 SIO B3001-5
6 GND ANA B3001-6
7 GND ANA B3001-7
8 AD 5V B3001-8
9 AD 5V B3001-9
10 CAM 9V B3001-10
11 CAM 9V B3001-11
12 NOREG B3001-12
13 NOREG B3001-13
14 CAM HD B3001-14
15 BFP B3001-15
16 CAM VD B3001-16
17 IRA B3001-17
18 NOREG GND B3001-18
19 NOREG GND B3001-19
20 CAM 15V B3001-20
21 CAM −8V B3001-21
22 CAM 3.5V B3001-22
23 CAM 3.5V B3001-23
24 GND DIGI B3001-24
25 GND DIGI B3001-25
26 CAM CLOCK B3001-26
27 CAM TEST B3001-27
28 CP2A B3001-28
29 BCBMB-Y B3001-29
30 BCBMR-Y B3001-30
(A77) (A78) (B9) (B43) (B17) (A75) (A73)
TL326 CL326
TL327 CL327
C361 0.1
C358 0.1
C359 0.1
C357 0.22
C362 0.1
R387 4700
5 V
35
36
37
38
39
40
41


C.B.A.
AF/MF
SW6701
EVQ21804B
(−)CLOSE
SW6703
EVQ21804B
(+)OPEN
SW6704
EVQ21804B
JP6701
J1A
J2A
J3A
J4A
J1
J2
J3
J4
P6701
(TO SYSTEM CTL)
1 SRCH (−) P6007-1
2 SRCH (+) P6007-2
3 INTER P6007-3
4 OSD P6007-4
5 DATE/TIME P6007-5
6 S/S P6007-6
T.W.L (H.S.S)
SW6717
EVQ21804B
WB
SW6719
EVQ21804B
SW6714
VSS0127
AUTO
MANU
DIGITAL ON/OFF
SW6707
VSS0126
ST/ST(KI)
SW6706
EVQ21804B
E.Z(KA)
SW6705
EVQ21804B
START
SW6708
EVQ21804B
WIPE
SW6710
EVQ21804B
MIX
SW6711
EVQ21804B
SRCH(−)
SW6723
EVQ21804B
SRCH(+)
SW6724
EVQ21804B
FADE
SW6702
EVQ21804B
OSD
SW6713
EVQ21804B
DATE/TIME
SW6716
EVQ21804B
INTER
SW6722
EVQ21804B
C.B.A.
SW1702
VMG0462
WIDE
TELE
TELE SPEED
JP1890
TO ZOOM
S/S
GND
J1A
J2A
SW1890
EVQQSU04W
S/S C.B.A.
(VEK5869)
JP1891
TO ZOOM
S/S
GND
J1B
J2B
SW1891
EVQQSU04W
SUB S/S C.B.A.
(VEK5870)
G
F
E
D
C
B

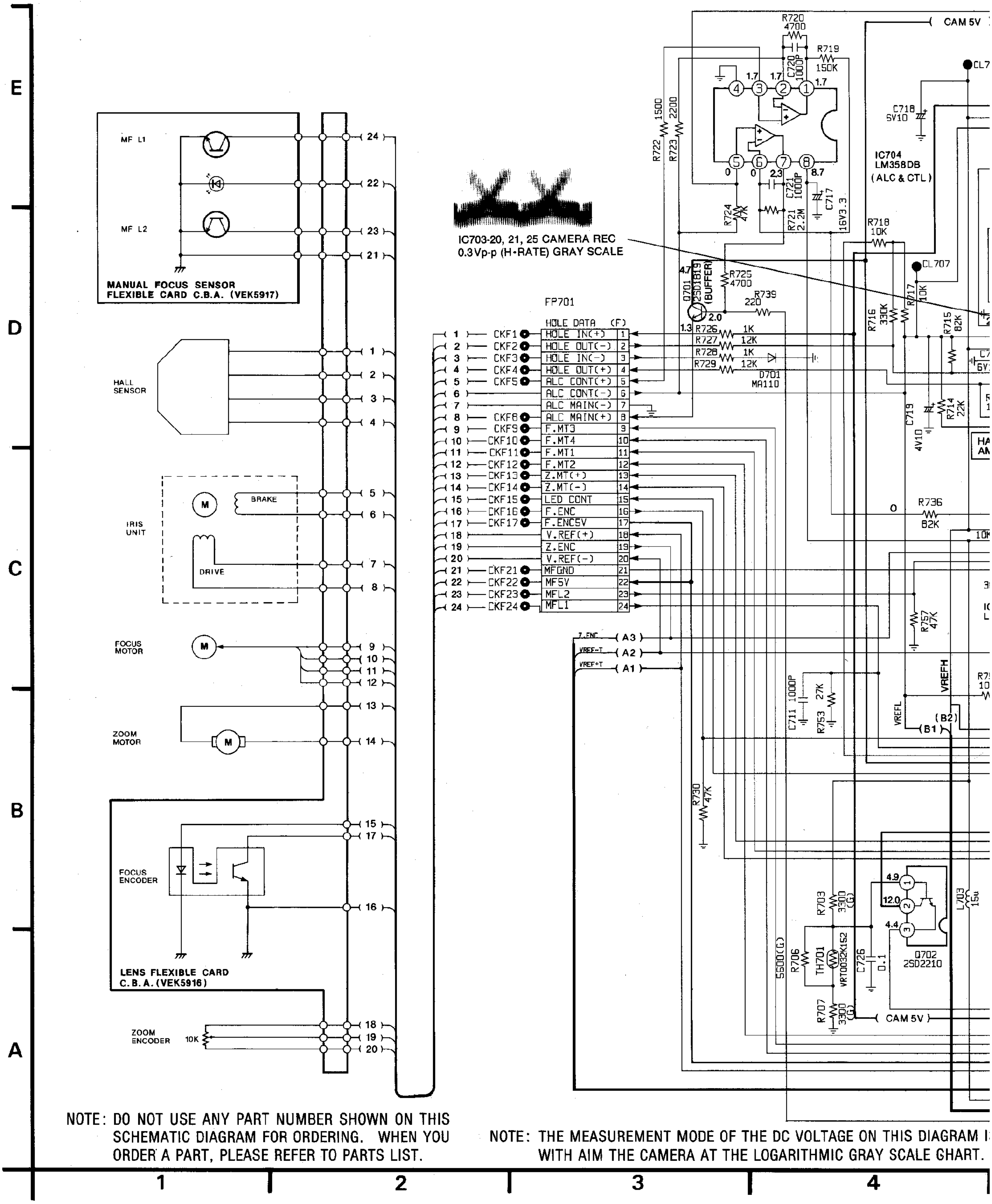
NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE WITH AIM THE CAMERA AT THE LOGARITHMIC GRAY SCALE CHART.

A

41 42 43 44 45 46

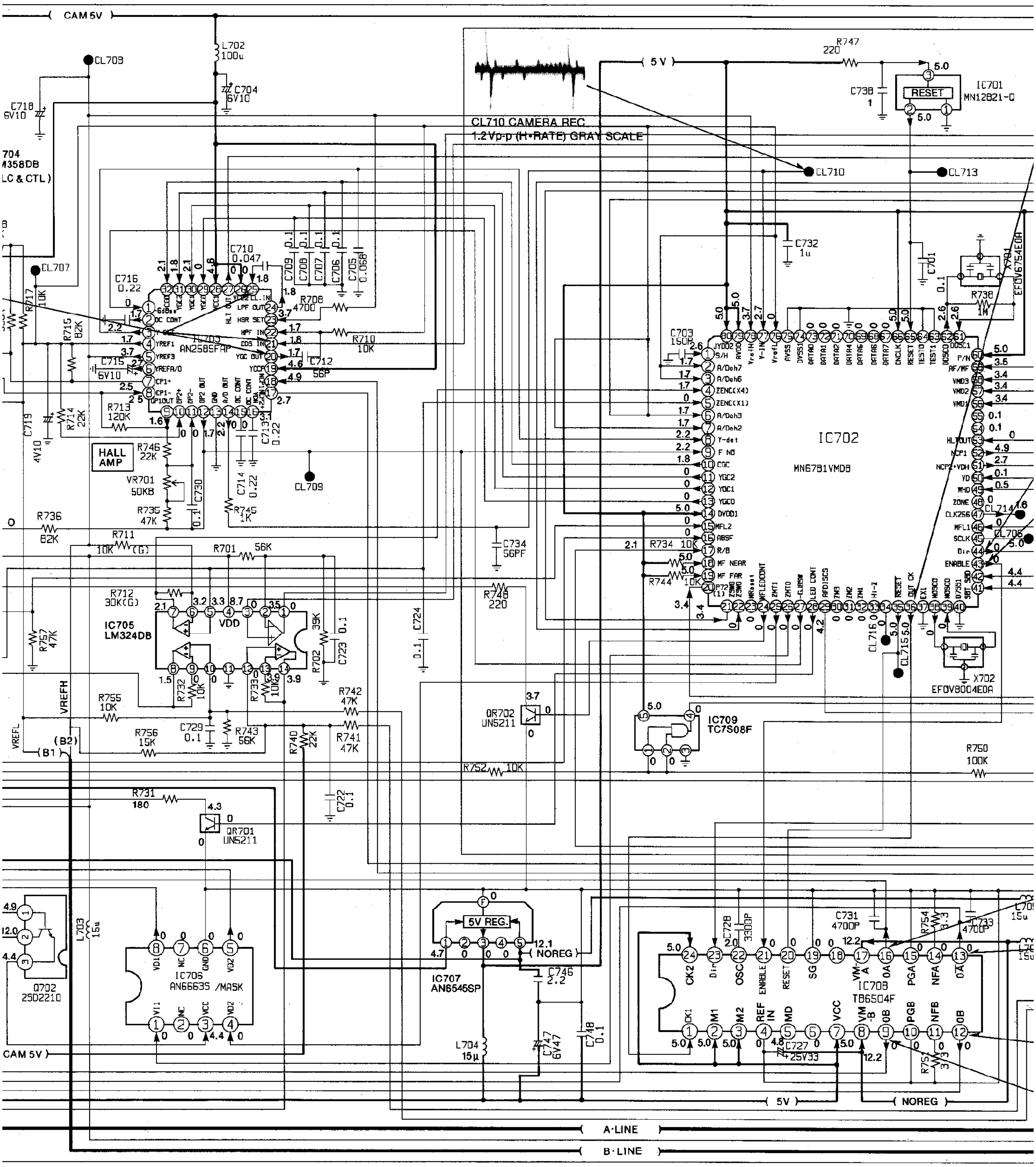
3-10. AUTO FOCUS SCHEMATIC DIAGRAM



E
D
C
B
A
1
2
3
4
MF L1
MF L2
MANUAL FOCUS SENSOR FLEXIBLE CARD C.B.A. (VEK5917)
HALL SENSOR
IRIS UNIT
BRAKE
DRIVE
FOCUS MOTOR
ZOOM MOTOR
FOCUS ENCODER
LENS FLEXIBLE CARD C.B.A. (VEK5916)
ZOOM ENCODER
10K
IC703-20, 21, 25 CAMERA REC
0.3Vp-p (H-RATE) GRAY SCALE
FP701
HOLE DATA (F)
CKF1 HOLE IN(+) 1
CKF2 HOLE OUT(-) 2
CKF3 HOLE IN(-) 3
CKF4 HOLE OUT(+) 4
CKF5 ALC CONT(+) 5
ALC CONT(-) 6
ALC MAIN(-) 7
CKF6 ALC MAIN(+) 8
CKF9 F.MT3 9
CKF10 F.MT4 10
CKF11 F.MT1 11
CKF12 F.MT2 12
CKF13 Z.MT(+) 13
CKF14 Z.MT(-) 14
CKF15 LED CONT 15
CKF16 F.ENC 16
CKF17 F.ENC5V 17
V.REF(+) 18
Z.ENC 19
V.REF(-) 20
CKF21 MFGND 21
CKF22 MF5V 22
CKF23 MFL2 23
CKF24 MFL1 24
Z.ENC (A3)
VREF-T (A2)
VREF+T (A1)
CAM 5V
R720 4700
R719 150K
C720 1000P
R722 1500
R723 2200
R724 47K
R721 2.2M
C721 1000P
C717 16V3.3
IC704 LM358DB (ALC & CTL)
C718 5V10
CL707
R718 10K
R725 4700
R739 220
Q701 2SD1819 (BUFFER)
R726 1K
R727 12K
R728 1K
R729 12K
D701 MA110
R716 330K
R717 10K
R715 82K
R714 22K
C719 4V10
R736 82K
R757 47K
VREFH
VREFL
(B1)
(B2)
C711 1000P
R753 27K
R730 47K
R703 3300(G)
R706 5600(G)
TH701 VRT0032K152
C726 0.1
R707 3300(G)
Q702 2SD2210
L703 15u
4.9
12.0
4.4
1.7
8.7
2.3
4.7
2.0
1.3
0

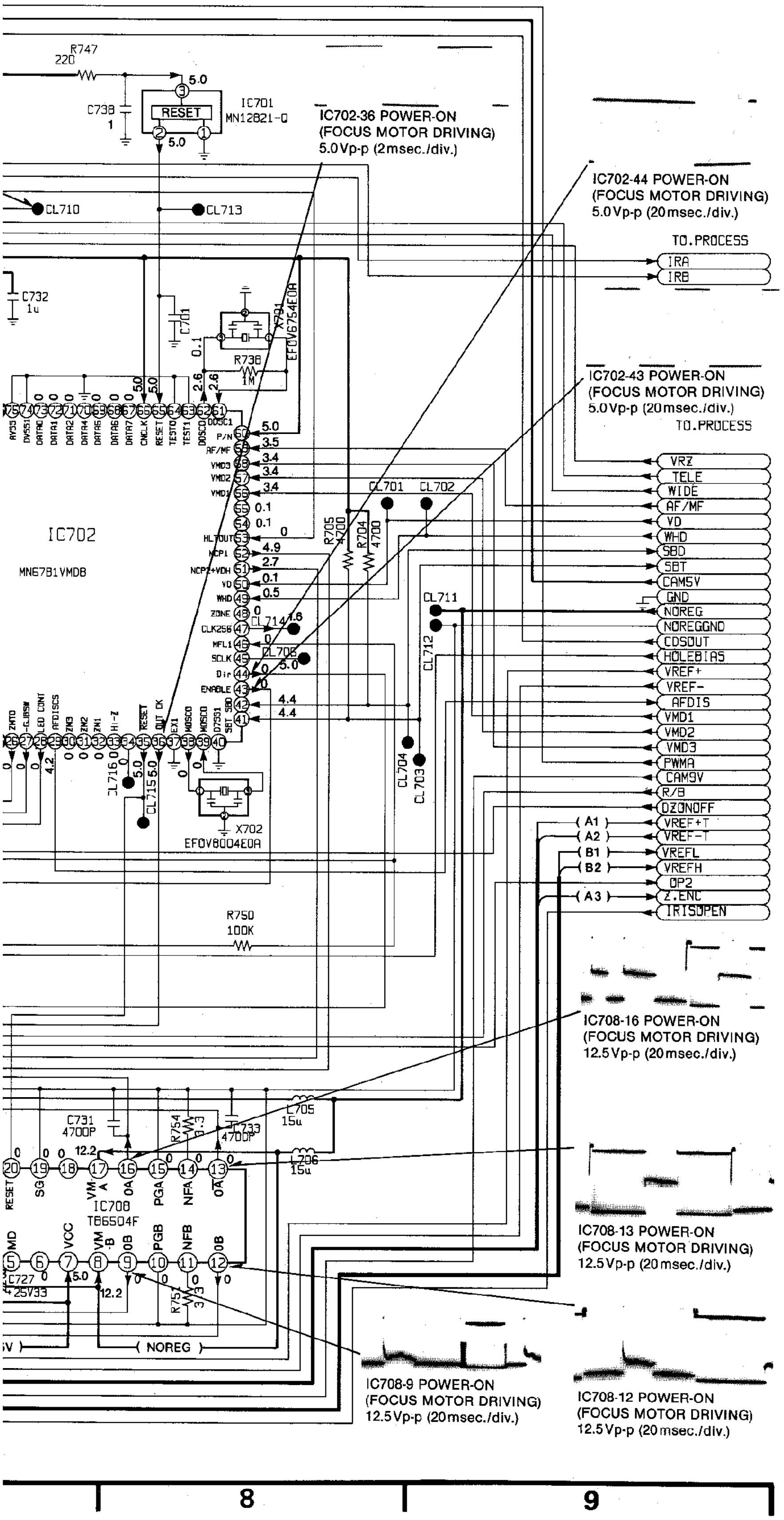
NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM I
WITH AIM THE CAMERA AT THE LOGARITHMIC GRAY SCALE GHART.


CAM 5V
CL703
L702 100u
C704 6V10
C718 6V10
704
M358DB
LC & CTL)
CL710 CAMERA REC
1.2Vp-p (H-RATE) GRAY SCALE
5 V
R747 220
C738 1
RESET
IC701 MN12821-Q
CL710
CL713
C732 1u
C701
X701 EFOV6754E0A
R738 1M
CL707
R717 10K
C716 0.22
C710 0.047
C709 C708 C707 C706 C705 0.068
R706 4700
IC703 AN2585FAP
R710 10K
C712 56P
R715 82K
C715 6V10
R713 120K
R714 22K
C719 4V10
HALL AMP
R746 22K
VR701 50KB
R735 47K
C730 0.1
C714 0.22
C713 0.22
R745 1K
CL709
C703 150P
IC702
MN6781VMDB
R734 10K
R744 10K
R736 82K
R711 10K (G)
R701 56K
C734 56PF
R748 220
R712 30K(G)
IC705 LM324DB
VDD
R757 47K
R702 39K
C723 0.1
C724 0.1
R732 10K
R733 10K
R755 10K
R742 47K
R741 47K
R756 15K
C729 0.1
R743 56K
R740 22K
VREFH
VREFL
(B1)
(B2)
QR702 UN5211
IC709 TC7S08F
X702 EFOV8004E0A
R750 100K
R752 10K
C722 0.1
R731 180
QR701 UN5211
CL714
CL705
CL716
CL715
L703 15u
Q702 2SD2210
IC706 AN6663S /MASK
5V REG.
NOREG
IC707 AN6545SP
C746 2.2
L704 15μ
C747 6V47
C748 0.1
C728 3300P
C731 4700P
R754 3.3
C733 4700P
IC708 TB6504F
C727 25V33
R757 3.3
5V
NOREG
A-LINE
B-LINE
CAM 5V

THIS DIAGRAM IS STOP MODE
SCALE CHART.

5 6 7 8



IC702-36 POWER-ON
(FOCUS MOTOR DRIVING)
5.0Vp-p (2msec./div.)

IC702-44 POWER-ON
(FOCUS MOTOR DRIVING)
5.0Vp-p (20msec./div.)

IC702-43 POWER-ON
(FOCUS MOTOR DRIVING)
5.0Vp-p (20msec./div.)

IC708-16 POWER-ON
(FOCUS MOTOR DRIVING)
12.5Vp-p (20msec./div.)

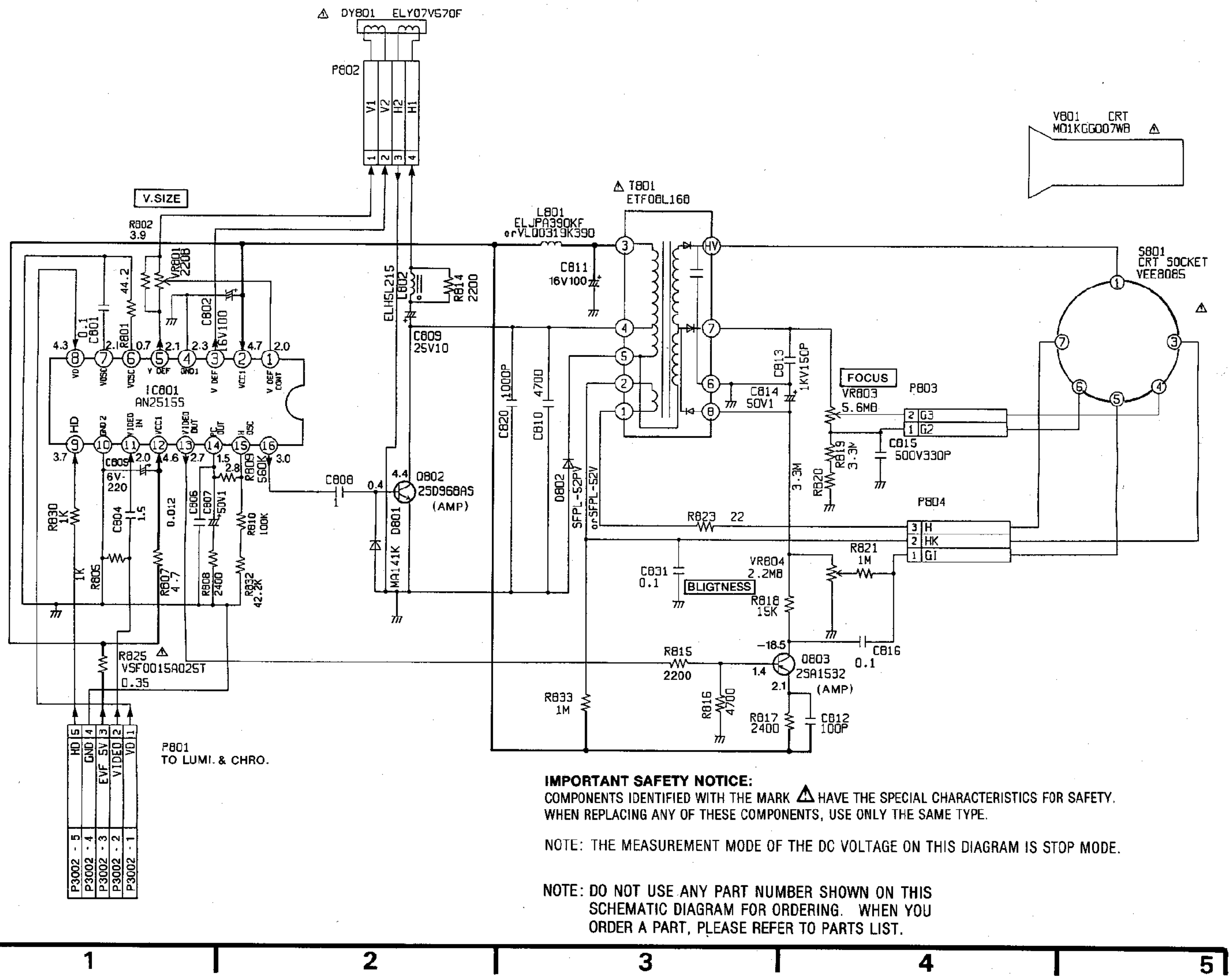
IC708-13 POWER-ON
(FOCUS MOTOR DRIVING)
12.5Vp-p (20msec./div.)

IC708-9 POWER-ON
(FOCUS MOTOR DRIVING)
12.5Vp-p (20msec./div.)

IC708-12 POWER-ON
(FOCUS MOTOR DRIVING)
12.5Vp-p (20msec./div.)

R747
220
C738
1
RESET
IC701
MN12821-Q
5.0
CL710
CL713
TO.PROCESS
IRA
IRB
C732
1u
C701
0.1
X701
EF0V6754E0A
R738
1M
IC702
MN6781VMDB
CL701
CL702
R705
4700
R704
4700
CL711
CL712
CL714
CL708
CL704
CL703
CL716
CL715
X702
EF0V8004E0A
TO.PROCESS
VRZ
TELE
WIDE
AF/MF
VD
WHD
SBD
SBT
CAM5V
GND
NOREG
NOREGGND
CDSOUT
HOLEBIAS
VREF+
VREF-
AFDIS
VMD1
VMD2
VMD3
PWMA
CAM9V
R/B
DZONOFF
A1
A2
B1
B2
A3
VREF+T
VREF-T
VREFL
VREFH
OP2
Z.ENC
IRISOPEN
R750
100K
C731
4700P
R754
3.3
C733
4700P
L705
15u
L706
15u
IC708
TB6504F
RESET
SG
VM A
OA
PGA
NFA
VCC
VM B
OB
PGB
NFB
R751
3.3
C727
25V33
NOREG
8
9

EVF SCHEMATIC DIAGRAM

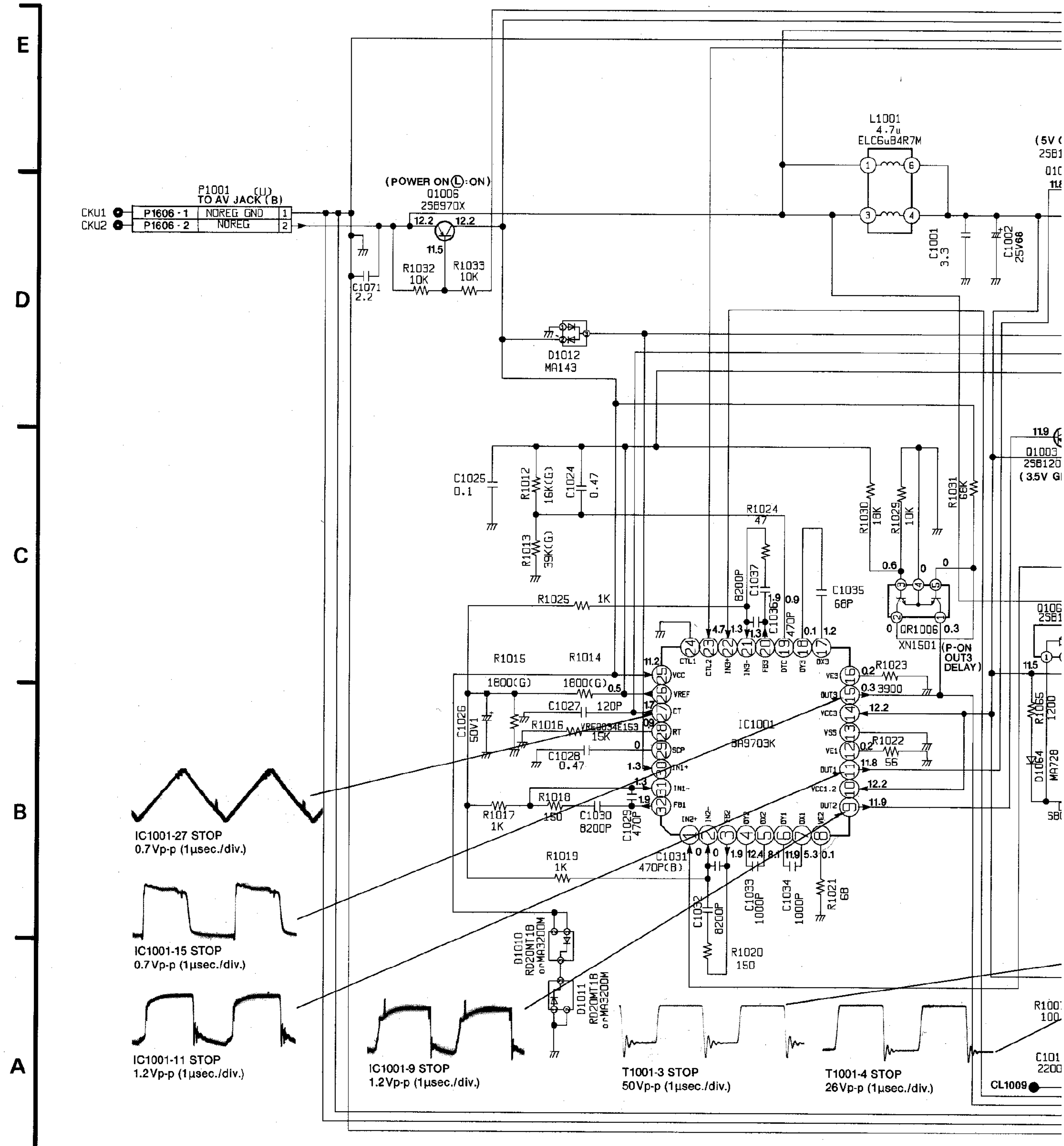

DY801 ELY07VG70F
P802
V1
V2
H2
H1
V801 CRT
M01KGG007WB
V.SIZE
R802
3.9
VR801
220B
44.2
0.1
C801
R801
C802
16V100
T801
ETF08L168
L801
ELJPA390KF
or VLQ0319K390
C811
16V100
ELH5L215
L802
R814
2200
C809
25V10
S801
CRT SOCKET
VEE8065
IC801
AN2515S
VD
VOSC
VCSC
V DEF
GND1
V DEF
VCC1
V DEF CONT
HD
GND2
VIDEO IN
VCC1
VIDEO OUT
AFC OUT
H OSC
4.3
2.1
0.7
2.1
2.3
4.7
2.0
3.7
2.0
4.6
2.7
1.5
2.8
3.0
C805
6V-220
C804
1.5
0.012
C806
C807
50V1
R809
560K
R810
100K
C808
1
0.4
4.4
Q802
2SD968AS
(AMP)
D801
MA141K
C820
1000P
C810
4700
D802
SFPL-52PV
or SFPL-52V
C813
1KV15CP
C814
50V1
FOCUS
VR803
5.6MB
P803
G3
G2
C815
500V330P
R819
3.3M
R820
3.3M
P804
H
HK
G1
R823 22
R821
1M
VR804
2.2MB
C831
0.1
BLIGTNESS
R818
15K
C816
0.1
-18.5
Q803
2SA1532
(AMP)
1.4
2.1
R815
2200
R816
4700
R817
2400
C812
100P
R833
1M
R830
1K
1K
R805
R807
4.7
R808
2400
R832
42.2K
R825
VSF0015A025T
0.35
HD
GND
EVF 5V
VIDEO
VD
P801
TO LUMI. & CHRO.
P3002 - 5
P3002 - 4
P3002 - 3
P3002 - 2
P3002 - 1
1
2
3
4
5

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

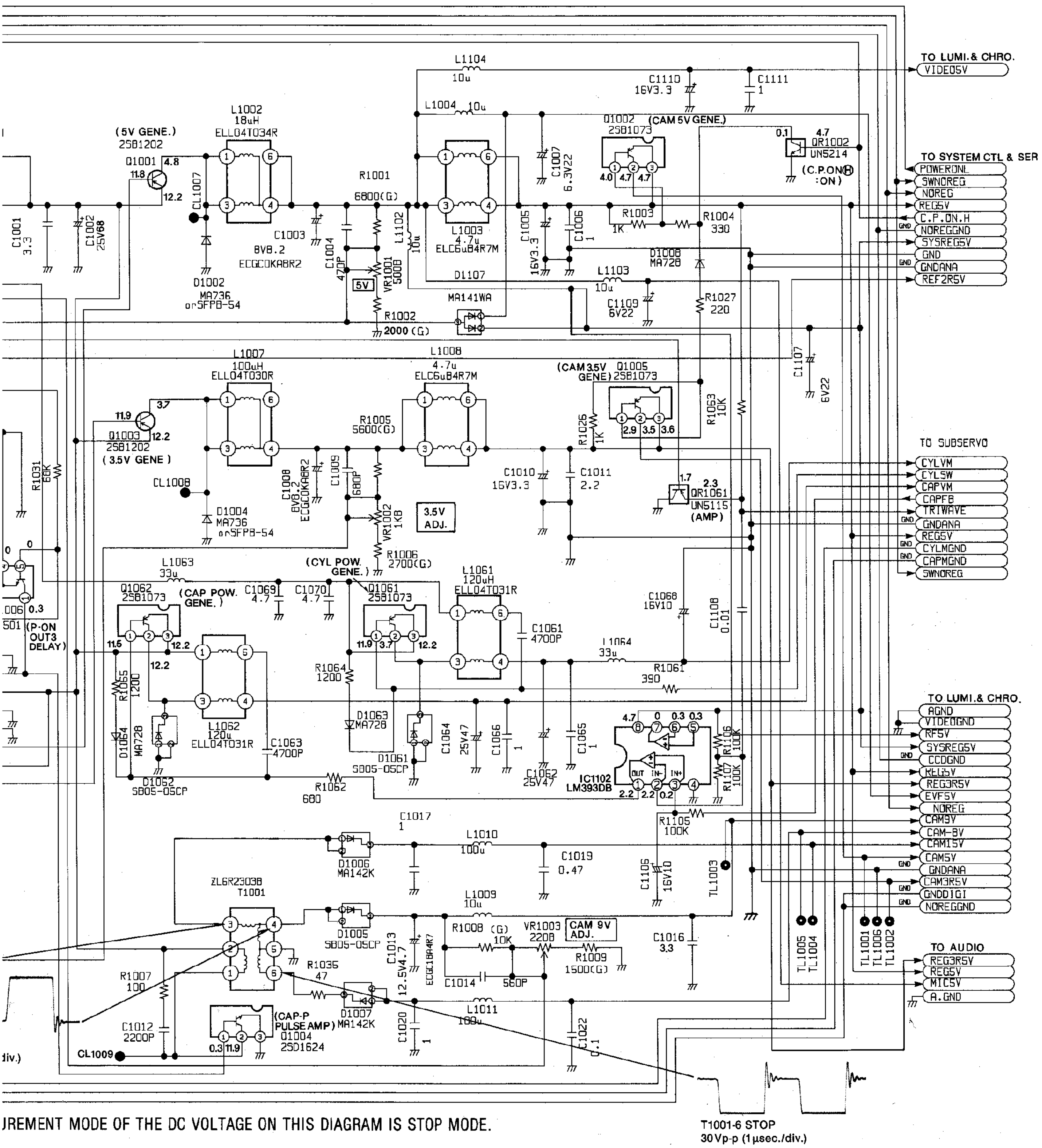
NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

3-15. POWER SCHEMATIC DIAGRAM


E
D
C
B
A
P1001 (U)
TO AV JACK (B)
CKU1
CKU2
P1606 - 1
P1606 - 2
NOREG GND
NOREG
(POWER ON Ⓛ:ON)
Q1006
2SB970X
12.2
12.2
11.5
R1032
10K
R1033
10K
C1071
2.2
D1012
MA143
L1001
4.7u
ELC6uB4R7M
C1001
3.3
C1002
25V68
(5V
2SB1
Q10
11.9
Q1003
2SB120
(3.5V G
C1025
0.1
R1012
16K(G)
C1024
0.47
R1013
39K(G)
R1024
47
C1037
8200P
C1036
470P
C1035
68P
R1030
18K
R1029
10K
R1031
68K
R1025 1K
R1015
R1014
1800(G)
1600(G)
C1027 120P
R1016 VREQ034E153 15K
C1028 0.47
C1026 50V1
R1018 150
R1017 1K
C1030 8200P
C1029 470P
C1031 470P(B)
R1019 1K
IC1001
BA9703K
QR1006
XN1501
(P-ON OUT3 DELAY)
R1023 3900
R1022 56
Q106
2SB1
R1055 1200
D1054 MA728
C1032 8200P
C1033 1000P
C1034 1000P
R1021 68
R1020 150
D1010 RD20MT1B or MA3200M
D1011 RD20MT1B or MA3200M
R100
100
C101
2200
CL1009
IC1001-27 STOP
0.7Vp-p (1μsec./div.)
IC1001-15 STOP
0.7Vp-p (1μsec./div.)
IC1001-11 STOP
1.2Vp-p (1μsec./div.)
IC1001-9 STOP
1.2Vp-p (1μsec./div.)
T1001-3 STOP
50Vp-p (1μsec./div.)
T1001-4 STOP
26Vp-p (1μsec./div.)
1
2
3
4

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

NOTE: THE MEASUREMENT MODE OF T


TO LUMI.& CHRO.
VIDEO5V
TO SYSTEM CTL & SER
POWERONL
SWNOREG
NOREG
REG5V
C.P.ON.H
NOREGGND
SYSREG5V
GND
GNDANA
REF2R5V
TO SUBSERVO
CYLVM
CYLSW
CAPVM
CAPFB
TRIWAVE
GNDANA
REG5V
CYLMGND
CAPMGND
SWNOREG
TO LUMI.& CHRO.
AGND
VIDEOGND
RF5V
SYSREG5V
CCDGND
REG5V
REG3R5V
EVF5V
NOREG
CAM9V
CAM-8V
CAM15V
CAM5V
GNDANA
CAM3R5V
GNDDIGI
NOREGGND
TO AUDIO
REG3R5V
REG5V
MIC5V
A.GND
(5V GENE.)
2SB1202
Q1001
L1002 18uH ELL04T034R
CL1007
D1002 MA736 or SFPB-54
C1001 3.3
C1002 25V68
R1001 6800(G)
C1003 8V8.2 ECGC0KA8R2
C1004 470P
L1102 10u
VR1001 500B
5V
R1002 2000(G)
L1104 10u
L1004 10u
L1003 4.7u ELC6uB4R7M
C1007 6.3V22
C1005 16V3.3
C1006 1
D1107 MA141WA
L1103 10u
C1109 6V22
C1110 16V3.3
C1111 1
Q1002 (CAM 5V GENE.) 2SB1073
R1003 1K
R1004 330
D1008 MA728
R1027 220
QR1002 UN5214
(C.P.ON H :ON)
L1007 100uH ELL04T030R
L1008 4.7u ELC6uB4R7M
Q1003 2SB1202 (3.5V GENE)
CL1008
D1004 MA736 or SFPB-54
R1031 68K
C1008 8V8.2 ECGC0KA8R2
C1009 680P
R1005 5600(G)
VR1002 1KB
3.5V ADJ.
R1006 2700(G)
C1010 16V3.3
C1011 2.2
(CAM 3.5V GENE) Q1005 2SB1073
R1026 1K
R1063 10K
C1107 6V22
QR1061 UN5115 (AMP)
L1063 33u
Q1062 2SB1073 (CAP POW. GENE.)
C1069 4.7
C1070 4.7
(CYL POW. GENE.)
Q1061 2SB1073
L1061 120uH ELL04T031R
C1068 16V10
C1108 0.01
C1061 4700P
L1064 33u
R1061 390
R1065 1200
D1064 MA728
L1062 120u ELL04T031R
C1063 4700P
D1062 SB05-05CP
R1062 680
R1064 1200
D1063 MA728
D1061 SB05-05CP
C1064 25V47
C1066 1
C1062 25V47
C1065 1
IC1102 LM393DB
R1106 100K
R1107 100K
R1105 100K
(P-ON OUT3 DELAY)
C1017 1
D1006 MA142K
L1010 100u
C1019 0.47
C1106 16V10
TL1003
ZL6R2303B T1001
D1005 SB05-05CP
L1009 10u
C1013 12.5V4.7
ECGC1BA4R7
R1008 (G) 10K
VR1003 220B
CAM 9V ADJ.
R1009 1500(G)
C1014 560P
C1016 3.3
R1007 100
C1012 2200P
CL1009
R1035 47
D1007 MA142K
L1011 100u
C1020 1
C1022 0.1
(CAP-P PULSE AMP) Q1004 2SD1624
TL1005 TL1004
TL1001 TL1006 TL1002
T1001-6 STOP
30Vp-p (1µsec./div.)
div.)
4
5
6
7
8

REMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

SYSTEM CONTROL & SERVO ICs DC VOLTAGE CHART

REF. NO.	IC6001																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STOP	0	0	0	0	0	0	0	0	12.2	12.2	0	0	0	0	0	0	0	0	0	0
REC/PLAY	0	0	0	0	0	0	0	0	12.1	12.1	0	0	0	0	0	0.1	0	0	0	0
F.F	0	0	0	0	0	0	0	0	12.0	12.1	0	0	0	0	0	0	0	0	0	0
REF. NO.	IC6001																			
MODE	21	22	23	24																
STOP	0	0	0	0																
REC/PLAY	0	0	0.1	0																
F.F	0	0	0	0																
REF. NO.	IC6002																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16				
STOP	4.6	0.1	4.7	4.7	4.7	1.7	1.7	0	0	0	0	0.1	0	0	4.3	3.8				
REC/PLAY	4.7	0.1	4.7	4.7	4.7	1.7	1.7	0	0	0	0	0	0	0	4.3	3.7				
F.F	4.7	0.1	4.7	4.7	4.7	1.7	1.7	0	0	0	0	0	0	0	4.3	3.8				
REF. NO.	IC6003																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14						
STOP	0	0.8	0	0	0.5	0.8	0	1.8	1.8	4.7	0	0	0	1.8						
REC/PLAY	0	0.8	0	0	0.5	0.8	0	1.8	1.8	4.7	0	0	0	1.8						
F.F	0	0.8	0	0	0.5	0.8	0	1.8	1.8	4.7	0	0	0	1.8						
REF. NO.	IC6004																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STOP	4.7	4.7	4.7	4.7	4.7	4.6	4.7	4.7	0	4.7	0	4.7	4.7	4.7	4.7	4.7	0	0	0	0
REC/PLAY	4.7	4.7	4.7	4.6	4.7	4.6	4.7	4.7	0	0	0	4.7	4.7	4.7	4.7	—	4.7	4.7	4.7	4.2
F.F	4.7	4.6	4.7	4.7	4.7	4.6	4.7	4.7	0	4.7	0	4.7	4.7	3.5	4.7	0	0	0	0	0
REF. NO.	IC6004																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
STOP	0	0	1.9	0	4.7	0	0	4.7	0.8	0	0	0	0.1	4.7	0	0	0	—	—	0
REC/PLAY	0	0	1.9	0	4.7	0	0	4.7	0.8	0	0	0	0.1	4.7	0	0	0	—	—	0
F.F	0	0	1.9	0	4.7	0	0	4.7	0.8	0	0	0	0.1	4.7	0	0	0	0.1	4.7	0
REF. NO.	IC6004																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
STOP	2.1	0.8	1.0	0	0	0.8	4.7	—	—	4.7	0	4.3	4.6	4.5	4.7	4.7	4.7	2.3	4.6	4.7
REC/PLAY	0	2.1	1.0	0	0	0.8	4.7	—	0.3	—	—	4.4	4.5	4.5	4.7	4.7	4.7	0	4.6	4.7
F.F	0	0.8	1.0	0	0	0.8	4.7	4.7	0	4.7	0	4.4	4.6	4.4	4.7	4.7	4.6	0	4.6	4.7
REF. NO.	IC6004																			
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
STOP	0	0	4.7	0	4.7	0	0	4.7	2.3	0	4.7	0	0	0	2.4	2.4	2.3	0	2.4	2.4
REC/PLAY	0	0	—	0	—	0	0	4.7	2.3	0	1.3	0	0	0	2.4	2.3	2.3	0	2.4	2.4
F.F	0	0	4.7	0	4.7	0	0	4.7	2.3	0	4.7	0	0	0	2.4	2.4	2.3	0	2.4	2.4
REF. NO.	IC6001																			
MODE	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
STOP	2.1	2.6	4.7	0	0	0	2.4	2.4	0	0	2.4	0	0	4.1	4.7	0	4.7	4.7	4.7	4.7
REC/PLAY	2.1	2.6	4.7	—	—	0	2.4	2.3	0	0	2.4	0	2.1	2.3	4.7	0	4.6	4.7	4.7	4.6
F.F	2.1	2.6	4.7	0	0	0	2.4	2.4	0	0	2.4	0	1.9	4.1	4.7	0	4.7	4.7	4.7	4.6
REF. NO.	IC6004																			
MODE	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120
STOP	4.6	2.9	0	0	4.7	4.7	3.7	2.5	4.3	0	0	0	4.7	4.7	4.5	4.7	4.7	4.7	4.7	4.7
REC/PLAY	4.6	2.9	0	0	4.7	4.7	—	2.5	4.6	—	0	0	4.7	4.7	4.6	4.6	4.7	4.7	4.7	4.7
F.F	4.6	2.9	0	0	4.7	4.7	—	2.5	4.3	0	0	0	4.7	4.7	4.6	4.6	4.7	4.7	4.7	4.7
REF. NO.	IC6004																			
MODE	121	122	123	124	125	126	127	128												
STOP	4.7	4.7	4.7	0	0	4.7	4.7	0												
REC/PLAY	4.7	0	0	0	0	4.7	4.7	0												
F.F	4.7	4.7	4.7	0	0	4.7	4.7	0												
REF. NO.	IC6005																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14						
STOP	0	4.7	4.7	4.7	4.7	4.7	0	0.5	4.7	4.7	4.7	4.7	0	4.7						
REC/PLAY	0	4.7	4.7	4.7	4.7	4.7	0	0.5	4.7	4.7	4.7	4.7	0	4.7						
F.F	0	4.7	4.7	4.7	4.7	4.7	0	0.5	4.6	4.7	4.6	4.6	0	4.7						
REF. NO.	IC6006																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14						
STOP	4.7	4.7	4.7	4.7	4.7	4.7	0	0	4.7	4.7	4.7	4.7	4.7	4.7						
REC/PLAY	4.7	4.7	4.7	4.7	4.7	4.7	0	0	4.7	4.7	4.7	4.7	4.7	4.7						
F.F	4.7	4.7	4.7	4.7	4.7	4.7	0	0	4.7	4.7	4.7	4.7	4.7	4.7						
REF. NO.	IC607																			
MODE	1	2	3	4	5															
STOP	4.3	4.6	0	0.8	4.7															
REC/PLAY	4.3	4.6	0	0.8	4.7															
F.F	4.4	4.6	0	0.8	4.7															
REF. NO.	IC6008																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14						
STOP	4.7	4.7	4.7	4.7	4.7	4.7	0	4.7	4.7	4.7	4.7	4.7	4.7	4.7						
REC/PLAY	4.7	4.7	4.7	4.7	4.7	4.7	0	4.7	4.7	4.7	4.7	4.7	4.7	4.7						
F.F	4.7	4.6	4.7	4.7	4.6	4.7	0	4.7	4.7	4.7	4.7	4.7	4.7	4.7						

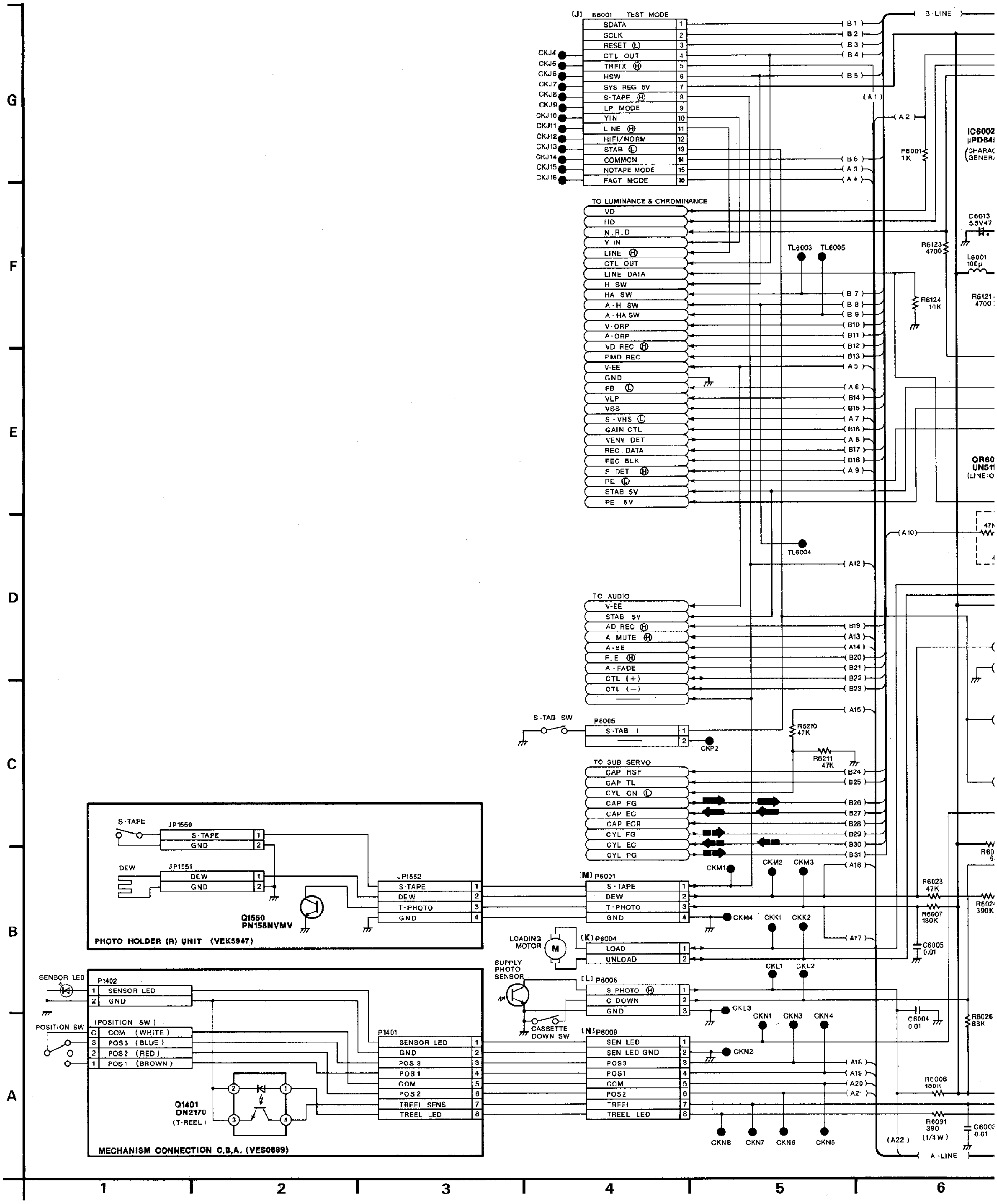
SYSTEM CONTROL & SERVO ICs DC VOLTAGE CHART

REF. NO.	IC6009										IC6010									
MODE	1	2	3								1	2	3							
STOP	0	4.7	4.7								5.0	0	12.2							
REC/PLAY	0	4.7	4.7								5.0	0	12.1							
F.F	0	4.7	4.7								5.0	0	12.1							
REF. NO.	IC6011																			
MODE	1	2	3	4	5															
STOP	4.7	4.5	0	4.5	4.7															
REC/PLAY	4.7	4.6	0	4.6	4.7															
F.F	4.6	4.6	0	4.7	4.7															

SYSTEM CONTROL & SERVO TRANSISTORs DC VOLTAGE CHART

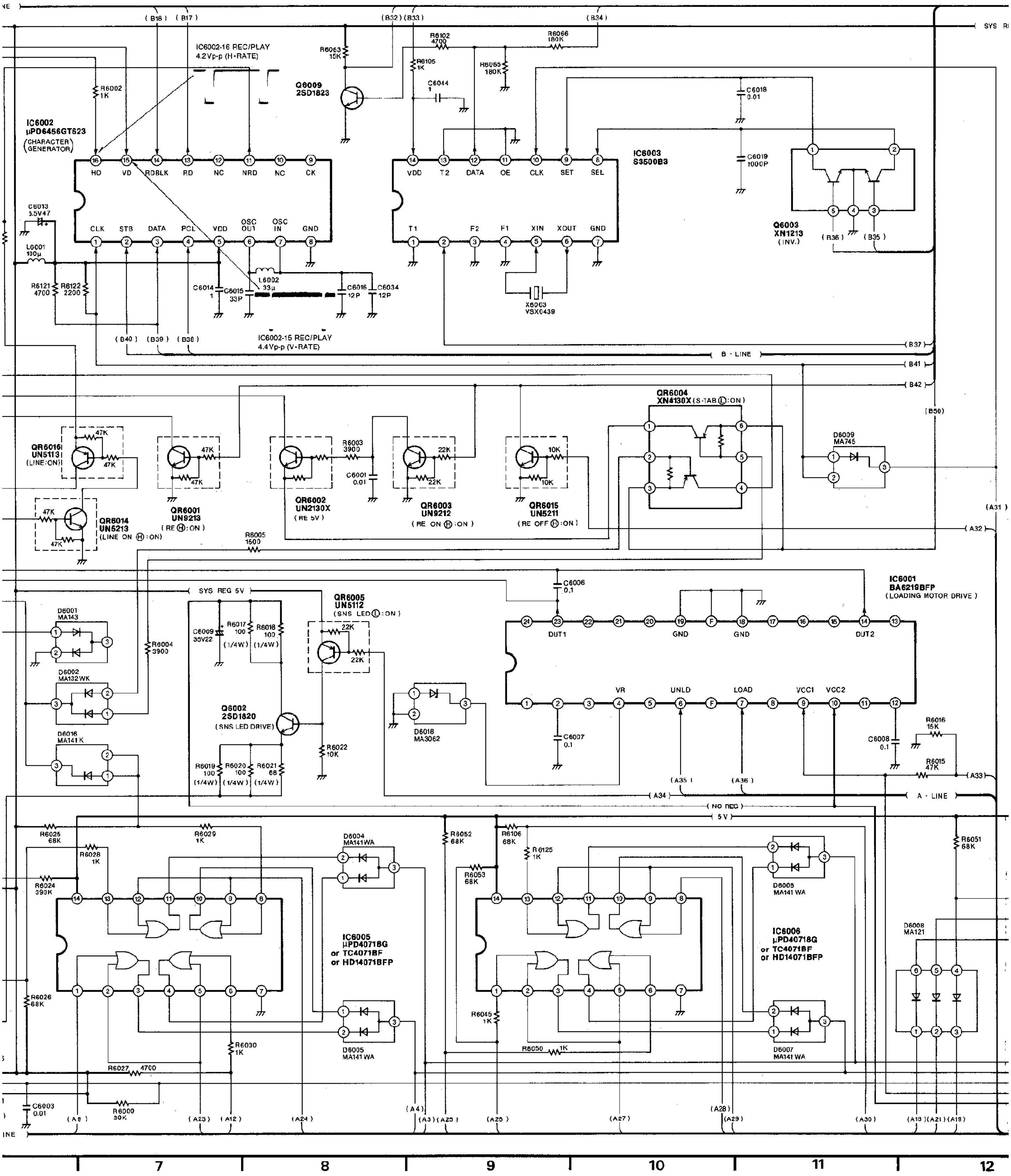
REF. NO.	Q6002			Q6003						Q6004			Q6005			Q6006		
MODE	E	C	B	1	2	3	4	5		E	C	B	E	C	B	E	C	B
STOP	0	12.2	0	1.8	1.8	0	0	0		4.7	4.7	4.0	0	0.1	0.7	0	4.6	0.1
REC/PLAY	0	12.1	0	1.8	1.8	0	0	0		4.7	4.7	4.0	0	0.1	0.7	0	4.7	0.1
F.F	1.6	10.9	1.6	1.8	1.8	0	0	0		4.7	4.7	4.0	0	0.1	0.7	0	4.6	0.1
REF. NO.	Q6007			Q6008			Q6009			Q6010			Q6012					
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
STOP	4.7	0	4.7	3.1	0	0												
REC/PLAY	4.7	0	4.7	3.1	3.9	0												
F.F	4.7	0	4.7	3.1	4.0	0												
REF. NO.	QR6001			QR6002			QR6003			QR6004						QR6005		
MODE	E	C	B	E	C	B	E	C	B	1	2	3	4	5	6	E	C	B
STOP	0	0.1	0	4.7	0.1	4.7	0	0	0	4.7	4.0	4.7	4.7	4.1	4.7	4.7	0	4.7
REC/PLAY	0	0	4.4	4.7	1.6	4.7	0	4.7	0.1	4.7	0	4.7	4.6	4.0	4.7	4.7	0	4.7
F.F	0	0	0	4.7	0.1	4.7	0	4.7	0	4.7	4.0	4.7	4.7	4.1	4.7	4.7	1.6	3.8
REF. NO.	QR6006			QR6007			QR6008			QR6010			QR6011			QR6012		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
STOP	0	0	0	0	0.1	4.5	0	0.1	4.7	4.7	4.6	0	4.7	0	4.7	4.7	0	4.7
REC/PLAY	0	4.7	0	0	0.1	4.3	0	0.1	4.7	4.7	4.6	0	4.7	0	0	4.7	4.7	0
F.F	0	4.7	0	0	0.1	4.3	0	0.1	4.7	4.7	4.6	0	4.7	0	4.7	4.7	0	4.7
REF. NO.	QR6013			QR6014			QR6015			QR6016			QR6017			QR6018		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
STOP	0	0	12.6	0	0	0	0	0	0									
REC/PLAY	0	0	12.5	0	0	4.7	0	0	4.7									
F.F	0	0	12.4	0	0	0	0	0	0									

3-16. SYSTEM CONTROL & SERVO SCHEMATIC DIAGRAM


G
F
E
D
C
B
A
1
2
3
4
5
6
(J) B6001 TEST MODE
SDATA
SCLK
RESET Ⓛ
CTL OUT
TRFIX Ⓗ
HSW
SYS REG 5V
S-TAPE Ⓗ
LP MODE
YIN
LINE Ⓗ
HIFI/NORM
STAB Ⓛ
COMMON
NOTAPE MODE
FACT MODE
CKJ4
CKJ5
CKJ6
CKJ7
CKJ8
CKJ9
CKJ10
CKJ11
CKJ12
CKJ13
CKJ14
CKJ15
CKJ16
B-LINE
IC6002
μPD64
(CHARAC
GENER
R6001 1K
C6013 5.5V47
R6123 4700
L6001 100μ
R6121 4700
R6124 10K
TL6003
TL6005
TL6004
TO LUMINANCE & CHROMINANCE
VD
HD
N.R.D
Y IN
LINE Ⓗ
CTL OUT
LINE DATA
H SW
HA SW
A-H SW
A-HA SW
V-ORP
A-ORP
VD REC Ⓗ
FMD REC
V-EE
GND
PB Ⓛ
VLP
VSS
S-VHS Ⓛ
GAIN CTL
VENV DET
REC. DATA
REC BLK
S DET Ⓗ
RE Ⓛ
STAB 5V
RE 5V
QR60
UN511
(LINE:O
TO AUDIO
V-EE
STAB 5V
AD REC Ⓗ
A MUTE Ⓗ
A-EE
F.E Ⓗ
A-FADE
CTL (+)
CTL (−)
S-TAB SW
P6005
S-TAB L
CKP2
R6210 47K
R6211 47K
TO SUB SERVO
CAP RSF
CAP TL
CYL ON Ⓛ
CAP FG
CAP EC
CAP ECR
CYL FG
CYL EC
CYL PG
S-TAPE
JP1550
S-TAPE
GND
DEW
JP1551
DEW
GND
JP1552
S-TAPE
DEW
T-PHOTO
GND
Q1550
PN158NVMV
PHOTO HOLDER (R) UNIT (VEK5947)
CKM1
CKM2
CKM3
(M) P6001
S-TAPE
DEW
T-PHOTO
GND
CKM4
CKK1
CKK2
R6023 47K
R6007 180K
R6024 390K
C6005 0.01
LOADING MOTOR
(K) P6004
LOAD
UNLOAD
CKL1
CKL2
SUPPLY PHOTO SENSOR
(L) P6006
S.PHOTO Ⓗ
C DOWN
GND
CKL3
CASSETTE DOWN SW
C6004 0.01
R6026 68K
SENSOR LED
P1402
SENSOR LED
GND
POSITION SW
(POSITION SW)
COM (WHITE)
POS3 (BLUE)
POS2 (RED)
POS1 (BROWN)
P1401
SENSOR LED
GND
POS 3
POS 1
COM
POS 2
TREEL SENS
TREEL LED
Q1401
ON2170
(T-REEL)
MECHANISM CONNECTION C.B.A. (VES0689)
(N) P6009
SEN LED
SEN LED GND
POS3
POS1
COM
POS2
TREEL
TREEL LED
CKN1
CKN2
CKN3
CKN4
CKN5
CKN6
CKN7
CKN8
R6006 100K
R6091 390 (1/4W)
C6003 0.01
(A22)
A-LINE
B1
B2
B3
B4
B5
B6
B7
B8
B9
B10
B11
B12
B13
B14
B15
B16
B17
B18
B19
B20
B21
B22
B23
B24
B25
B26
B27
B28
B29
B30
B31
A1
A2
A3
A4
A5
A6
A7
A8
A9
A10
A12
A13
A14
A15
A16
A17
A18
A19
A20
A21

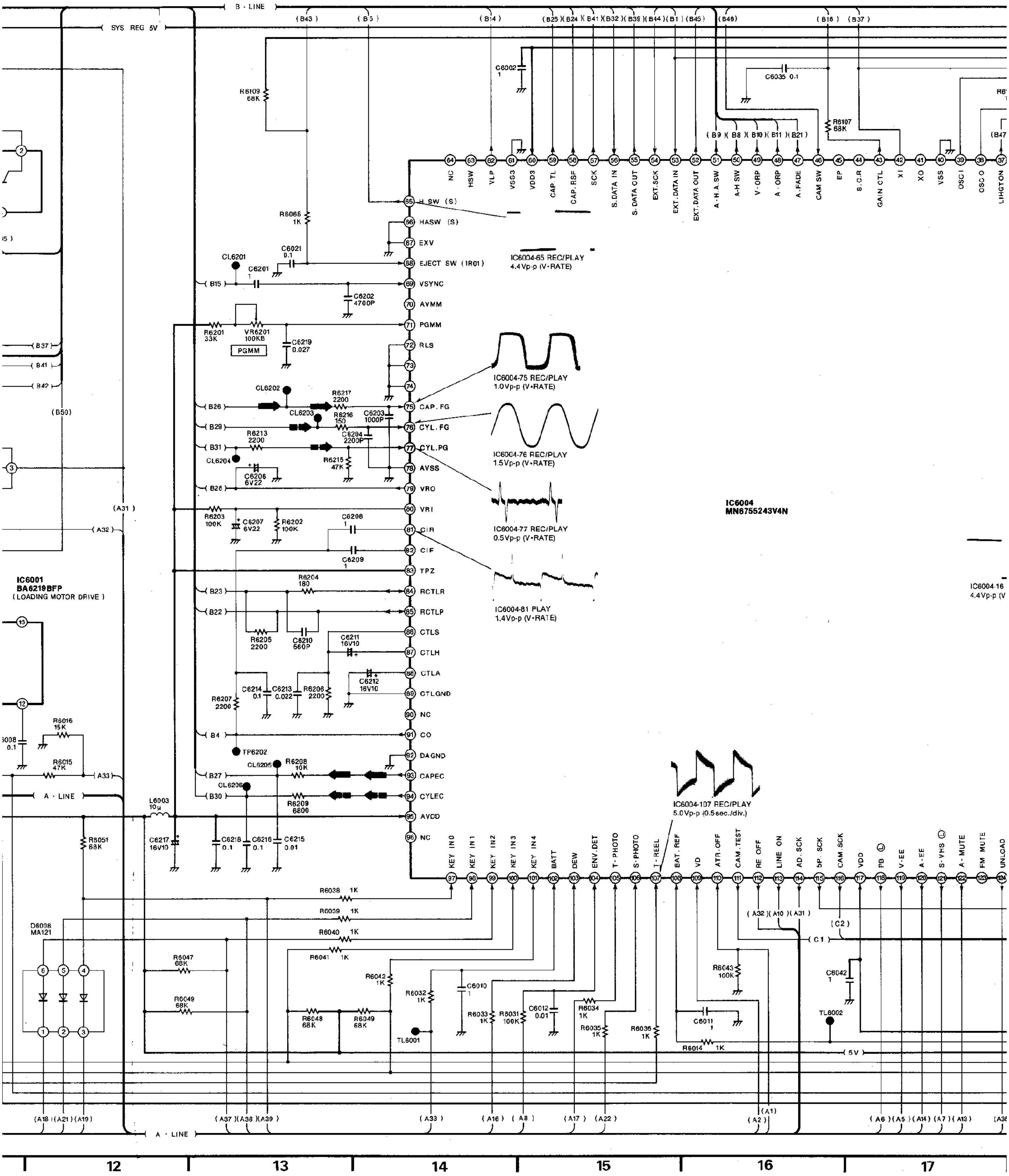
CAPSTAN SERVO SPEED LOOP

CAPSTAN SERVO PHA


(B18)
(B17)
(B32)
(B33)
(B34)
SYS
IC6002-16 REC/PLAY
4.2Vp-p (H-RATE)
R6002
1K
IC6002
μPD6456GT623
(CHARACTER GENERATOR)
HD
VD
RDBLK
RD
NC
NRD
NC
CK
CLK
STB
DATA
PCL
VDD
OSC OUT
OSC IN
GND
C6013
5.5V47
L6001
100μ
R6121
4700
R6122
2200
C6014
1
C6015
33P
L6002
33μ
C6016
12P
C6034
12P
(B40)
(B39)
(B38)
IC6002-15 REC/PLAY
4.4Vp-p (V-RATE)
R6063
15K
Q6009
2SD1823
R6102
4700
R6105
1K
C6044
1
R6065
180K
R6066
180K
C6018
0.01
C6019
1000P
IC6003
S3500B3
VDD
T2
DATA
OE
CLK
SET
SEL
T1
F2
F1
XIN
XOUT
GND
X6003
VSX0439
Q6003
XN1213
(INV.)
(B36)
(B35)
(B37)
B - LINE
(B41)
(B42)
(B50)
QR6004
XN4130X (S-TAB Ⓛ:ON)
D6009
MA745
QR6016
UN5113
(LINE:ON)
47K
QR6014
UN5213
(LINE ON Ⓗ:ON)
QR6001
UN9213
(RE Ⓗ:ON)
QR6002
UN2130X
(RE 5V)
R6003
3900
C6001
0.01
QR6003
UN9212
(RE ON Ⓗ:ON)
22K
QR6015
UN5211
(RE OFF Ⓗ:ON)
10K
R6005
1500
(A31)
(A32)
SYS REG 5V
C6006
0.1
IC6001
BA6219BFP
(LOADING MOTOR DRIVE)
OUT1
GND
GND
OUT2
VR
UNLD
LOAD
VCC1
VCC2
D6001
MA143
D6002
MA132WK
D6016
MA141K
R6004
3900
C6009
35V22
R6017
100
(1/4W)
R6018
100
(1/4W)
QR6005
UN5112
(SNS LED Ⓛ:ON)
Q6002
2SD1820
(SNS LED DRIVE)
R6022
10K
R6019
100
(1/4W)
R6020
100
(1/4W)
R6021
68
(1/4W)
D6018
MA3062
C6007
0.1
C6008
0.1
R6016
15K
R6015
47K
(A35)
(A36)
(A33)
(A34)
A - LINE
(NO REC)
(5V)
R6025
68K
R6028
1K
R6029
1K
R6024
390K
D6004
MA141WA
IC6005
μPD40718G
or TC4071BF
or HD14071BFP
R6026
68K
D6005
MA141WA
R6030
1K
R6027
4700
R6009
30K
C6003
0.01
R6052
68K
R6106
68K
R6125
1K
R6053
68K
D6006
MA141WA
IC6006
μPD40718G
or TC4071BF
or HD14071BFP
R6045
1K
R6050
1K
D6007
MA141WA
R6051
68K
D6008
MA121
(A8)
(A23)
(A12)
(A24)
(A4)
(A3)
(A25)
(A26)
(A27)
(A28)
(A29)
(A30)
(A19)
(A21)
(A18)
7
8
9
10
11
12

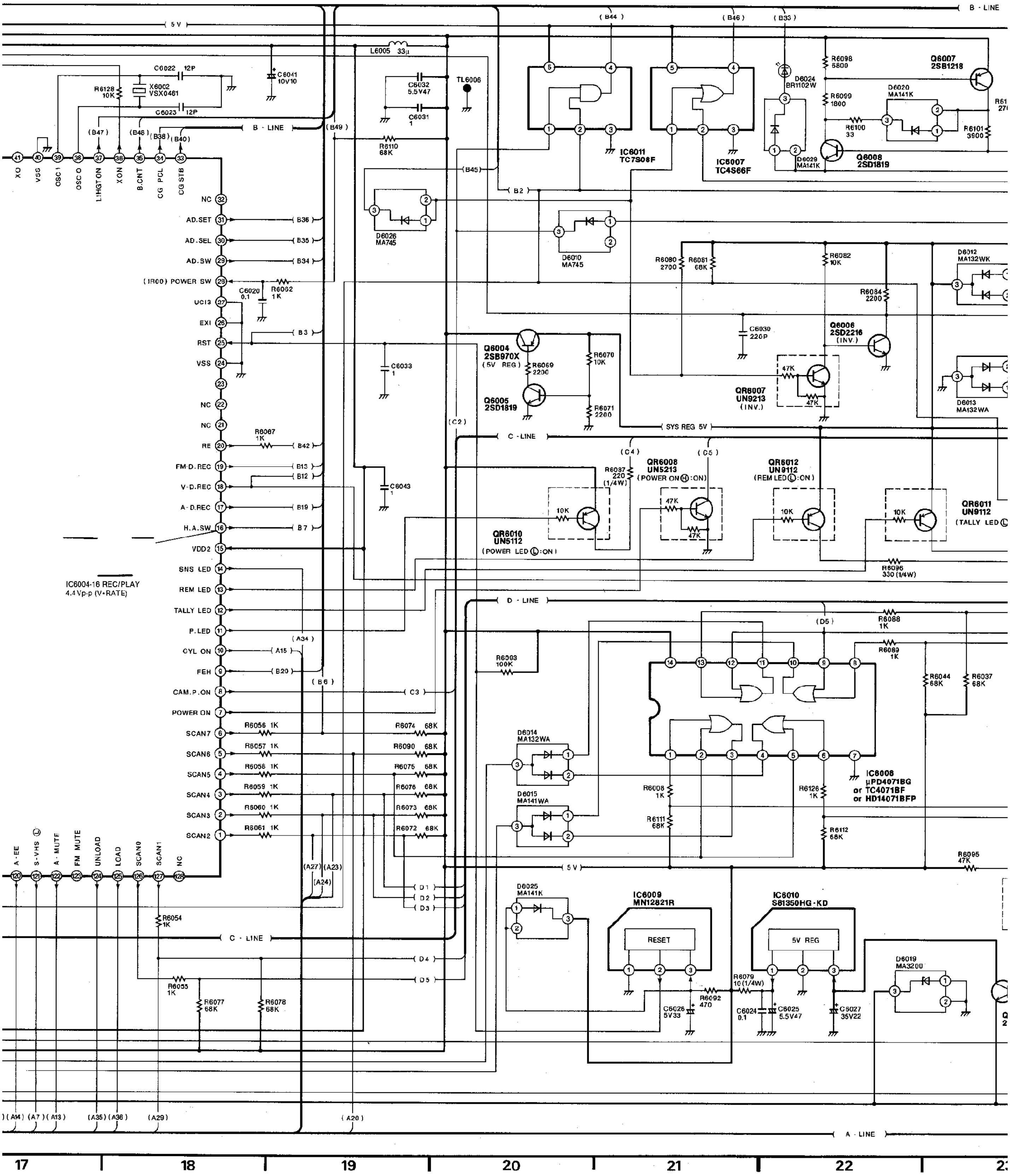
SERVO PHASE LOOP

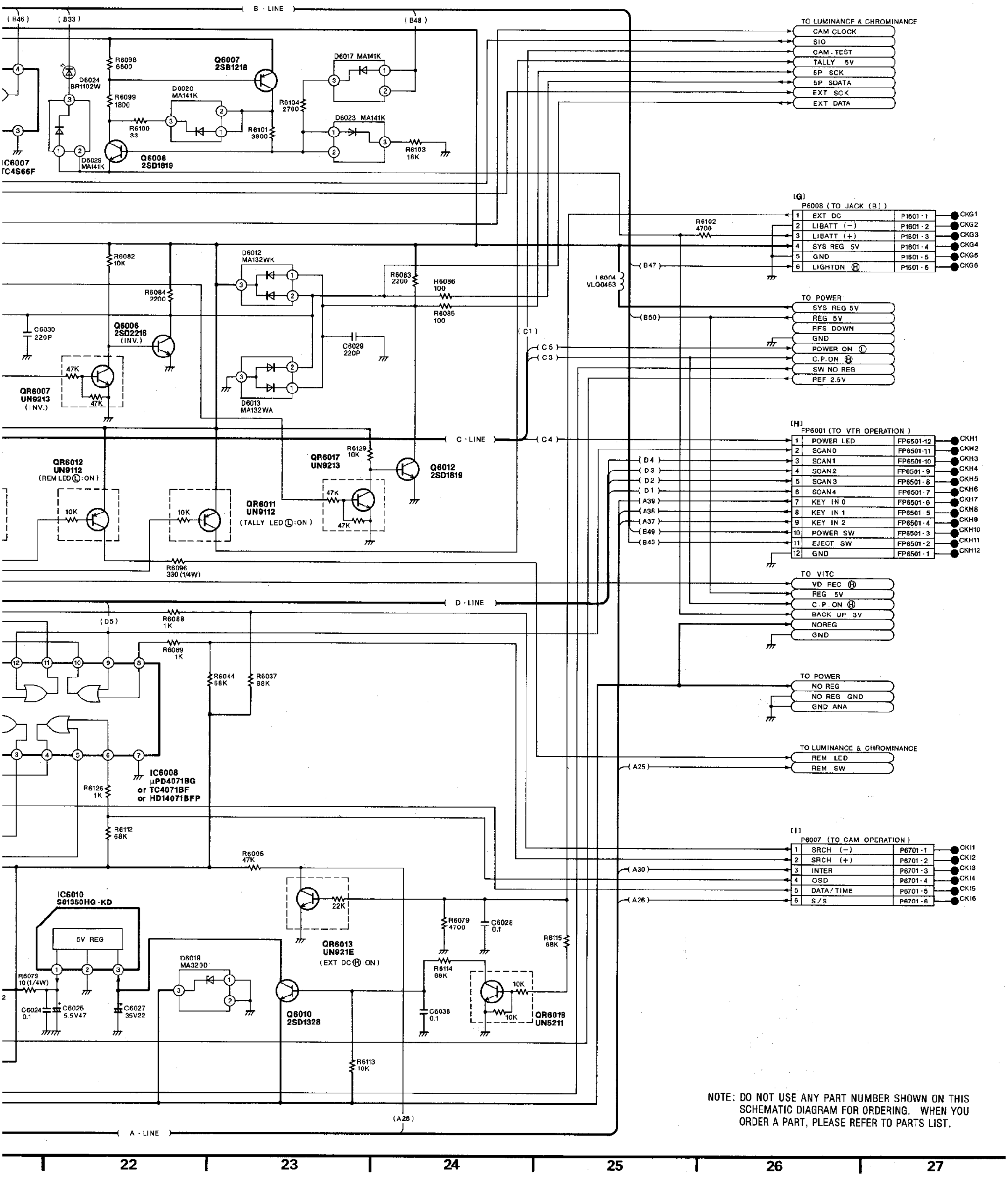
CYLINDER SERVO SPEED LOOP



B - LINE
SYS REG 5V
A - LINE
5V
IC6004
MN6755243V4N
IC6001
BA6219BFP
(LOADING MOTOR DRIVE)
D6008
MA121
IC6004-65 REC/PLAY
4.4Vp-p (V·RATE)
IC6004-75 REC/PLAY
1.0Vp-p (V·RATE)
IC6004-76 REC/PLAY
1.5Vp-p (V·RATE)
IC6004-77 REC/PLAY
0.5Vp-p (V·RATE)
IC6004-81 PLAY
1.4Vp-p (V·RATE)
IC6004-107 REC/PLAY
5.0Vp-p (0.5sec./div.)
IC6004-16
4.4Vp-p (V
NC
HSW
VLP
VSS3
VDD3
CAP.TL
CAP.RSF
SCK
S.DATA IN
S.DATA OUT
EXT.SCK
EXT.DATA IN
EXT.DATA OUT
A-H.A.SW
A-H SW
V.ORP
A.ORP
A.FADE
CAM SW
EP
S.C.R
GAIN CTL
XI
XO
VSS
OSC I
OSC O
LIHGTON
H SW (S)
HASW (S)
EXV
EJECT SW (IR01)
VSYNC
AVMM
PGMM
RLS
CAP. FG
CYL. FG
CYL. PG
AVSS
VRO
VRI
CIR
CIF
TPZ
RCTLR
RCTLP
CTLS
CTLH
CTLA
CTLGND
NC
CO
DAGND
CAPEC
CYLEC
AVDD
NC
KEY IN0
KEY IN1
KEY IN2
KEY IN3
KEY IN4
BATT
DEW
ENV.DET
T-PHOTO
S-PHOTO
T-REEL
BAT.REF
VD
ATR.OFF
CAM.TEST
RE OFF
LINE ON
AD.SCK
SP.SCK
CAM SCK
VDD
PB
V-EE
A-EE
S-VHS
A-MUTE
FM MUTE
UNLOAD
PGMM
R6109 68K
R6066 1K
C6021 0.1
C6201 1
C6202 4700P
CL6201
R6201 33K
VR6201 100KB
C6219 0.027
CL6202
R6217 2200
CL6203
R6216 150
C6203 1000P
R6213 2200
C6204 2200P
R6215 47K
CL6204
C6206 6V22
R6203 100K
C6207 6V22
R6202 100K
C6208 1
C6209 1
R6204 180
R6205 2200
C6210 560P
C6211 16V10
C6212 16V10
C6214 0.1
C6213 0.022
R6206 2200
R6207 2200
TP6202
CL6205
R6208 10K
CL6206
R6209 6800
L6003 10μ
C6217 16V10
C6218 0.1
C6216 0.1
C6215 0.01
R6051 68K
R6016 15K
R6015 47K
C6002 1
C6035 0.1
R6107 68K
R6038 1K
R6039 1K
R6040 1K
R6041 1K
R6047 68K
R6049 68K
R6048 68K
R6042 1K
R6032 1K
C6010 1
R6033 1K
R6031 100K
C6012 0.01
R6034 1K
R6035 1K
R6036 1K
R6043 100K
C6011 1
R6014 1K
C6042 1
TL6001
TL6002
12
13
14
15
16
17

CYLINDER SERVO PHASE LOOP

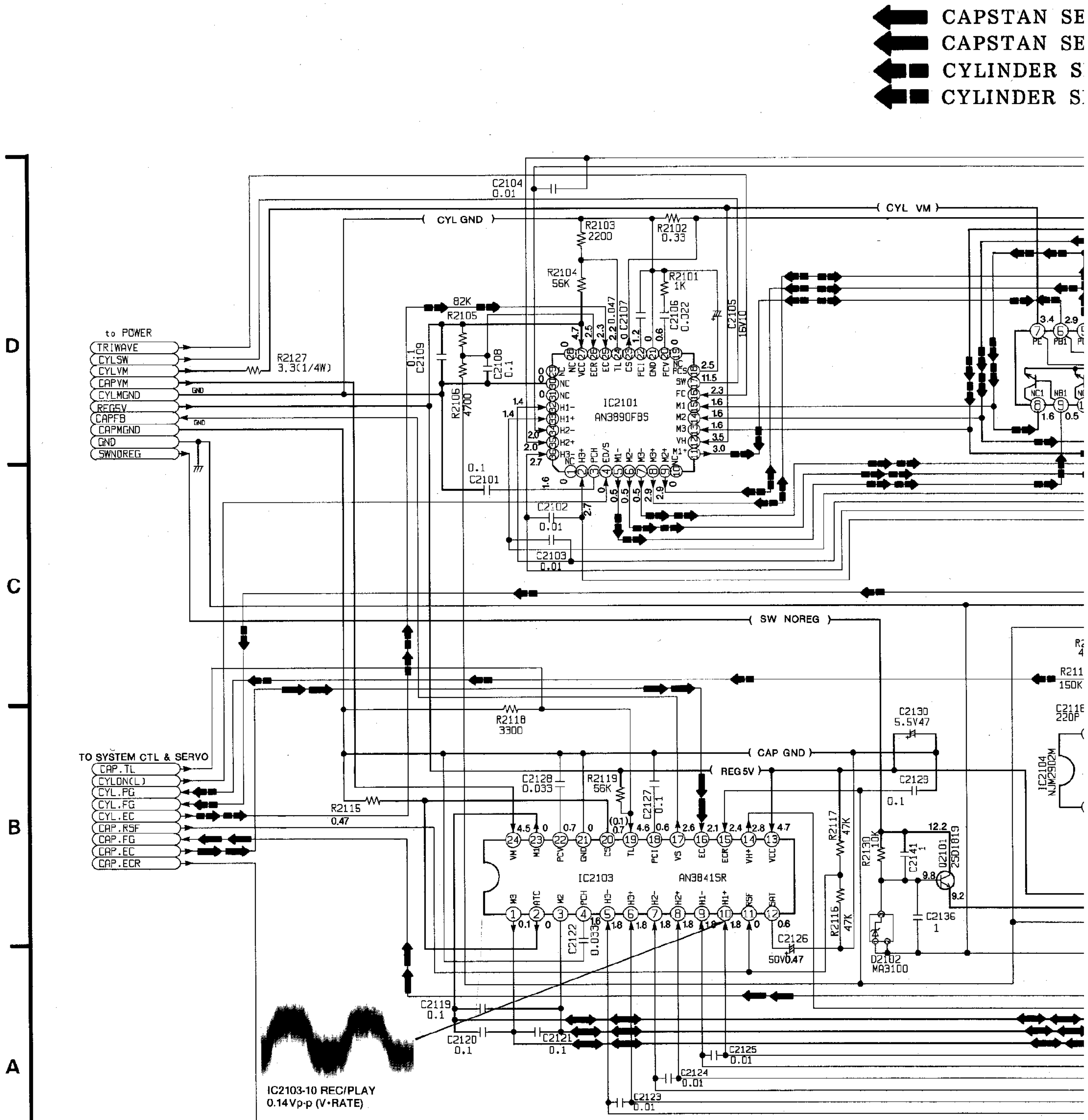

B - LINE
5 V
C - LINE
D - LINE
A - LINE
SYS REG 5V
L6005 33μ
C6022 12P
C6023 12P
R6128 10K
X6002 VSX0461
C6041 10V10
C6032 5.5V47
C6031 1
TL6006
R6110 68K
IC6011 TC7S08F
IC6007 TC4S66F
D6024 BR1102W
D6029 MA141K
R6098 6800
R6099 1800
R6100 33
D6020 MA141K
Q6007 2SB1218
Q6008 2SD1819
R6101 3900
D6026 MA745
D6010 MA745
R6080 2700
R6081 68K
R6082 10K
R6084 2200
D6012 MA132WK
D6013 MA132WA
C6020 0.1
R6062 1K
C6030 220P
Q6006 2SD2216 (INV.)
QR6007 UN9213 (INV.)
47K
Q6004 2SB970X (5V REG)
R6069 2200
R6070 10K
Q6005 2SD1819
R6071 2200
C6033 1
C6043 1
R6067 1K
R6087 220 (1/4W)
QR6008 UN5213 (POWER ON H:ON)
QR6012 UN9112 (REM LED L:ON)
QR6011 UN9112 (TALLY LED L)
QR6010 UN5112 (POWER LED L:ON)
10K
R6096 330 (1/4W)
IC6004-16 REC/PLAY 4.4Vp-p (V-RATE)
XO 41
VSS 40
OSC 1 39
OSC O 38
LIHGTON 37
XON 36
B.CNT 35
CG PCL 34
CGSTB 33
NC 32
AD.SET 31
AD.SEL 30
AD.SW 29
(IR00) POWER SW 28
UCI3 27
EXI 26
RST 25
VSS 24
23
NC 22
NC 21
RE 20
FM·D.REC 19
V-D.REC 18
A·D.REC 17
H.A.SW 16
VDD2 15
SNS LED 14
REM LED 13
TALLY LED 12
P.LED 11
CYL ON 10
FEH 9
CAM.P.ON 8
POWER ON 7
SCAN7 6
SCAN6 5
SCAN5 4
SCAN4 3
SCAN3 2
SCAN2 1
A·EE 120
S-VHS L 121
A·MUTE 122
FM MUTE 123
UNLOAD 124
LOAD 125
SCAN0 126
SCAN1 127
NC 128
R6056 1K
R6057 1K
R6058 1K
R6059 1K
R6060 1K
R6061 1K
R6074 68K
R6090 68K
R6075 68K
R6076 68K
R6073 68K
R6072 68K
R6003 100K
R6088 1K
R6089 1K
R6044 68K
R6037 68K
D6014 MA132WA
D6015 MA141WA
R6008 1K
R6111 68K
R6126 1K
R6112 68K
IC6008 μPD4071BG or TC4071BF or HD14071BFP
R6095 47K
D6025 MA141K
IC6009 MN12821R
RESET
IC6010 S81350HG-KD
5V REG
R6079 10 (1/4W)
R6092 470
C6026 5V33
C6024 0.1
C6025 5.5V47
C6027 35V22
D6019 MA3200
R6054 1K
R6055 1K
R6077 68K
R6078 68K
B44
B46
B33
B49
B47
B48
B38
B40
B45
B2
B36
B35
B34
B3
B42
B13
B12
B19
B7
A15
B20
A34
B6
C3
C2
C4
C5
D5
D1
D2
D3
D4
A27
A23
A24
A14
A7
A13
A35
A36
A29
A20
17
18
19
20
21
22
23



B - LINE
C - LINE
D - LINE
A - LINE
TO LUMINANCE & CHROMINANCE
CAM CLOCK
SIO
CAM . TEST
TALLY 5V
6P SCK
6P SDATA
EXT SCK
EXT DATA
(G)
P6008 (TO JACK (B))
1 EXT DC P1601-1 CKG1
2 LIBATT (−) P1601-2 CKG2
3 LIBATT (+) P1601-3 CKG3
4 SYS REG 5V P1601-4 CKG4
5 GND P1601-5 CKG5
6 LIGHTON Ⓗ P1601-6 CKG6
TO POWER
SYS REG 5V
REG 5V
REG DOWN
GND
POWER ON Ⓛ
C.P.ON Ⓗ
SW NO REG
REF 2.5V
(H)
FP6001 (TO VTR OPERATION)
1 POWER LED FP6501-12 CKH1
2 SCAN0 FP6501-11 CKH2
3 SCAN1 FP6501-10 CKH3
4 SCAN2 FP6501-9 CKH4
5 SCAN3 FP6501-8 CKH5
6 SCAN4 FP6501-7 CKH6
7 KEY IN 0 FP6501-6 CKH7
8 KEY IN 1 FP6501-5 CKH8
9 KEY IN 2 FP6501-4 CKH9
10 POWER SW FP6501-3 CKH10
11 EJECT SW FP6501-2 CKH11
12 GND FP6501-1 CKH12
TO VITC
VD REC Ⓗ
REG 5V
C.P.ON Ⓗ
BACK UP 3V
NOREG
GND
TO POWER
NO REG
NO REG GND
GND ANA
TO LUMINANCE & CHROMINANCE
REM LED
REM SW
(I)
P6007 (TO CAM OPERATION)
1 SRCH (−) P6701-1 CKI1
2 SRCH (+) P6701-2 CKI2
3 INTER P6701-3 CKI3
4 OSD P6701-4 CKI4
5 DATA/TIME P6701-5 CKI5
6 S/S P6701-6 CKI6
(B46) (B33) (B48) (B47) (B50) (C1) (C5) (C3) (C4) (D4) (D3) (D2) (D1) (A39) (A38) (A37) (B49) (B43) (D5) (A25) (A30) (A26) (A28)
IC6007 TC4S66F
D6024 BR1102W
D6029 MA141K
R6098 6800
R6099 1800
R6100 33
D6020 MA141K
Q6007 2SB1218
Q6008 2SD1819
R6101 3900
R6104 2700
D6017 MA141K
D6023 MA141K
R6103 18K
R6102 4700
L6004 VLQ0463
R6082 10K
R6084 2200
C6030 220P
Q6006 2SD2216 (INV.)
QR6007 UN9213 (INV.)
47K
D6012 MA132WK
D6013 MA132WA
R6083 2200
R6086 100
R6085 100
C6029 220P
R6129 10K
QR6017 UN9213
Q6012 2SD1819
QR6012 UN9112 (REM LED Ⓛ : ON)
QR6011 UN9112 (TALLY LED Ⓛ : ON)
10K
R6096 330 (1/4W)
R6088 1K
R6089 1K
R6044 68K
R6037 68K
IC6008 µPD4071BG or TC4071BF or HD14071BFP
R6126 1K
R6112 68K
R6095 47K
IC6010 S81350HG-KD
5V REG
R6079 10 (1/4W)
C6024 0.1
C6025 5.5V47
C6027 35V22
D6019 MA3200
Q6010 2SD1328
QR6013 UN921E (EXT DC Ⓗ : ON)
22K
R6079 4700
C6026 0.1
R6114 68K
C6038 0.1
QR6018 UN5211
R6115 68K
R6113 10K
22
23
24
25
26
27

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

3-17. SUB SERVO SCHEMATIC DIAGRAM



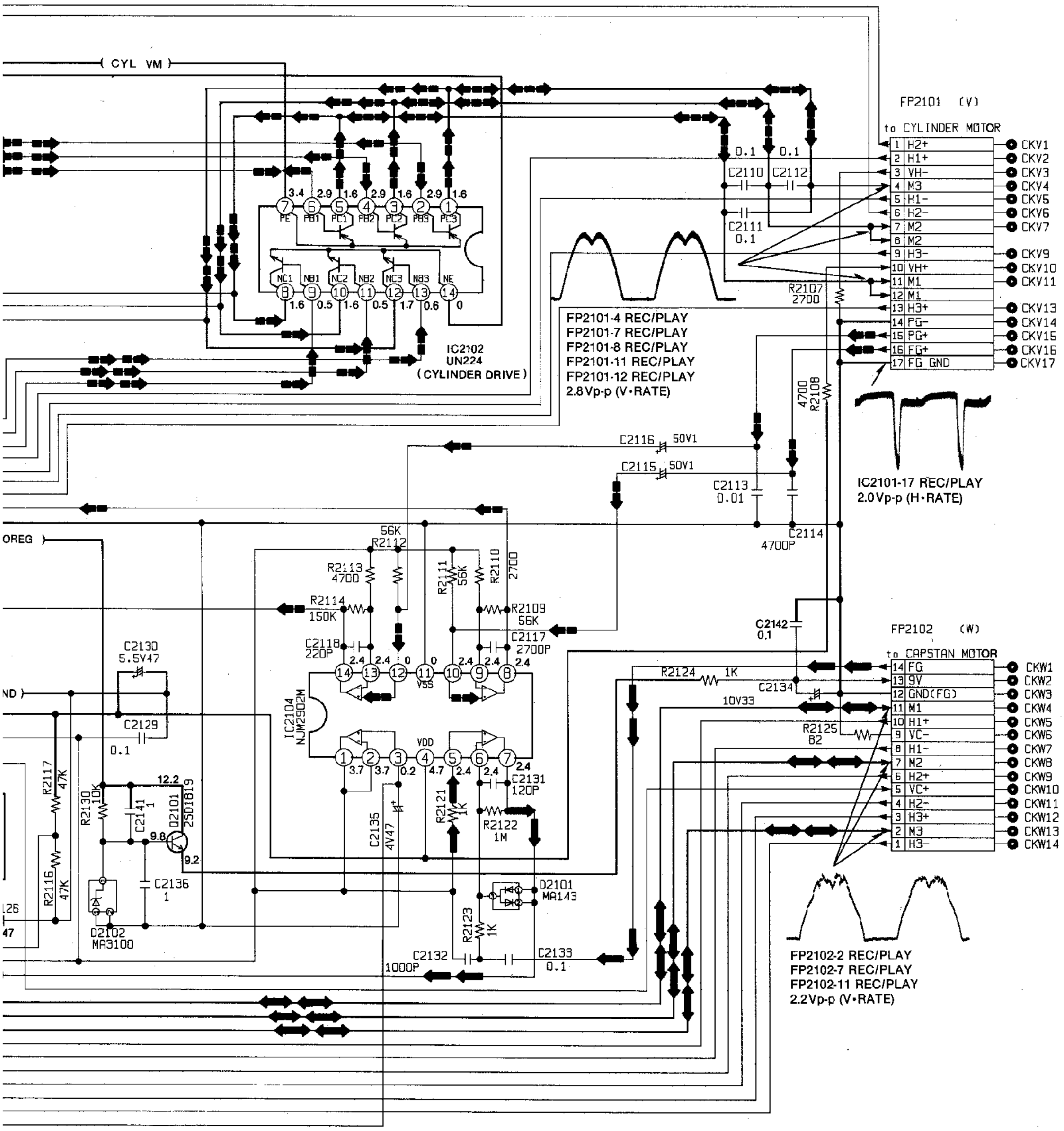
CAPSTAN SE
CAPSTAN SE
CYLINDER S
CYLINDER S
D
C
B
A
to POWER
TRIWAVE
CYLSW
CYLVM
CAPVM
CYLMGND
REG5V
CAPFB
CAPMGND
GND
SWNOREG
R2127
3.3(1/4W)
C2104
0.01
CYL GND
CYL VM
R2103
2200
R2102
0.33
R2104
56K
R2101
1K
82K
R2105
C2109
0.1
C2108
0.1
R2106
4700
C2107
C2106
0.022
C2105
16V10
IC2101
AN3890FBS
0.1
C2101
C2102
0.01
C2103
0.01
SW NOREG
TO SYSTEM CTL & SERVO
CAP.TL
CYLON(L)
CYL.PG
CYL.FG
CYL.EC
CAP.RSF
CAP.FG
CAP.EC
CAP.ECR
R2118
3300
CAP GND
REG5V
C2128
0.033
R2119
56K
C2127
0.1
R2115
0.47
C2130
5.5V47
C2129
0.1
R2117
47K
R2116
47K
R2130
10K
C2141
1
Q2101
2SD1819
C2136
1
D2102
MA3100
IC2103
AN3841SR
C2122
0.033
C2126
50V0.47
C2119
0.1
C2120
0.1
C2121
0.1
C2125
0.01
C2124
0.01
C2123
0.01
R211
150K
C211
220P
IC2104
NJM2902M
IC2103-10 REC/PLAY
0.14Vp-p (V·RATE)

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS (
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS

1 2 3 4

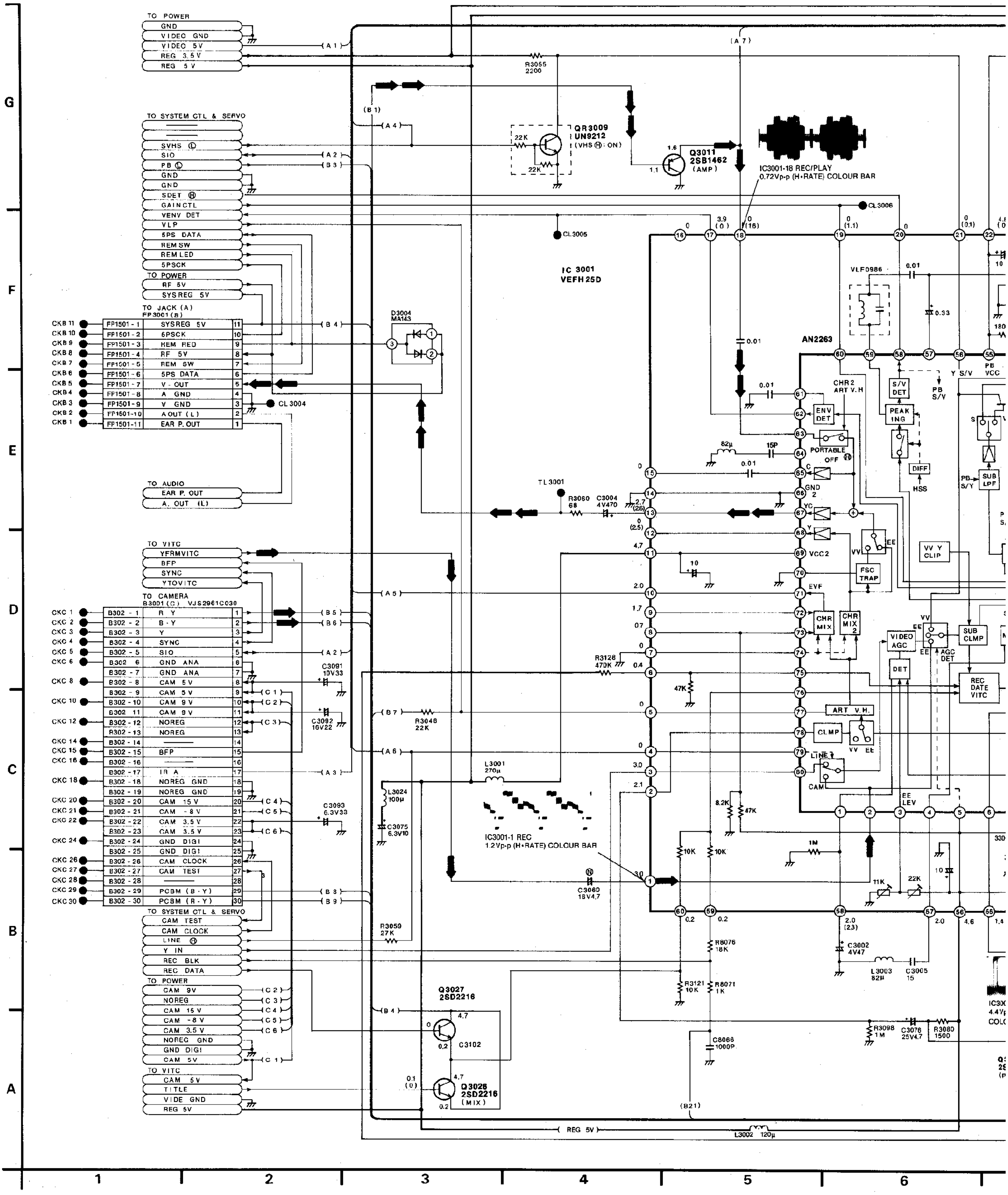
CAPSTAN SERVO SPEED LOOP
CAPSTAN SERVO PHASE LOOP
CYLINDER SERVO SPEED LOOP
CYLINDER SERVO PHASE LOOP


CYL VM
OREG
ND
IC2102
UN224
(CYLINDER DRIVE)
PE
PB1
PC1
PB2
PC2
PB3
PC3
NC1
NB1
NC2
NB2
NC3
NB3
NE
FP2101-4 REC/PLAY
FP2101-7 REC/PLAY
FP2101-8 REC/PLAY
FP2101-11 REC/PLAY
FP2101-12 REC/PLAY
2.8Vp-p (V·RATE)
FP2101 (V)
to CYLINDER MOTOR
1 H2+
2 H1+
3 VH-
4 M3
5 H1-
6 H2-
7 M2
8 M2
9 H3-
10 VH+
11 M1
12 M1
13 H3+
14 FG-
15 PG+
16 FG+
17 FG GND
CKV1
CKV2
CKV3
CKV4
CKV5
CKV6
CKV7
CKV9
CKV10
CKV11
CKV13
CKV14
CKV15
CKV16
CKV17
C2110 0.1
C2112 0.1
C2111 0.1
R2107 2700
R2108 4700
IC2101-17 REC/PLAY
2.0Vp-p (H·RATE)
C2116 50V1
C2115 50V1
C2113 0.01
C2114 4700P
C2142 0.1
R2112 56K
R2113 4700
R2114 150K
R2111 56K
R2110 2700
R2109 56K
C2118 220P
C2117 2700P
IC2104
NJM2902M
VSS
VDD
C2131 120P
R2121 1K
R2122 1M
C2135 4V47
D2101 MA143
R2123 1K
C2132 1000P
C2133 0.1
C2130 5.5V47
C2129 0.1
R2117 47K
R2116 47K
R2130 10K
C2141 1
Q2101 2SD1819
C2136 1
D2102 MA3100
FP2102 (W)
to CAPSTAN MOTOR
14 FG
13 9V
12 GND(FG)
11 M1
10 H1+
9 VC-
8 H1-
7 M2
6 H2+
5 VC+
4 H2-
3 H3+
2 M3
1 H3-
CKW1
CKW2
CKW3
CKW4
CKW5
CKW6
CKW7
CKW8
CKW9
CKW10
CKW11
CKW12
CKW13
CKW14
R2124 1K
C2134 10V33
R2125 82
FP2102-2 REC/PLAY
FP2102-7 REC/PLAY
FP2102-11 REC/PLAY
2.2Vp-p (V·RATE)

MODE OF THE DC VOLTAGE IN THE BRACKETS (   ) ON THIS DIAGRAM IS RECORD MODE.
MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE.

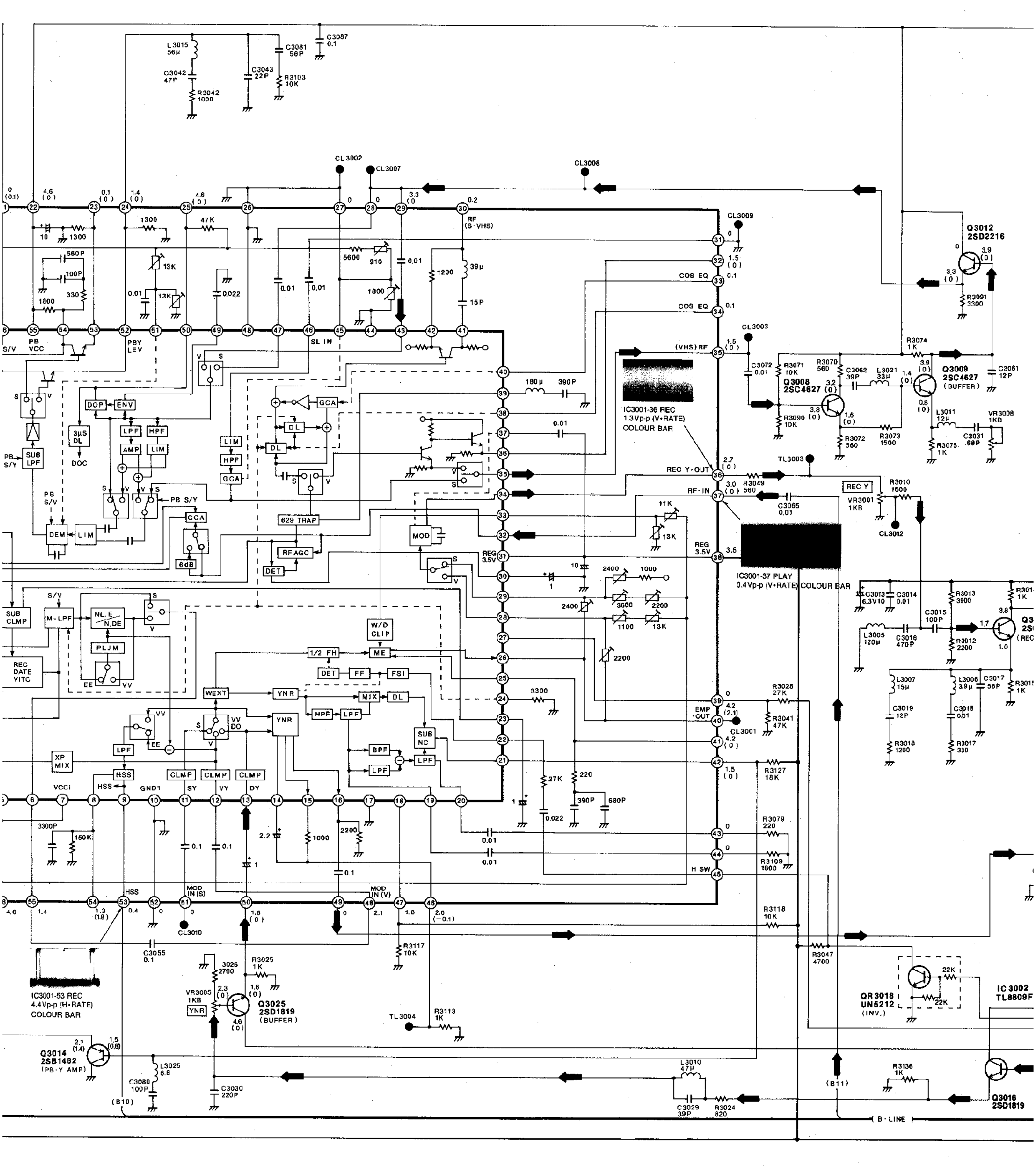
4 5 6 7

3-18. LUMINANCE/CHROMINANCE & HEAD AMP SCHEMATIC D

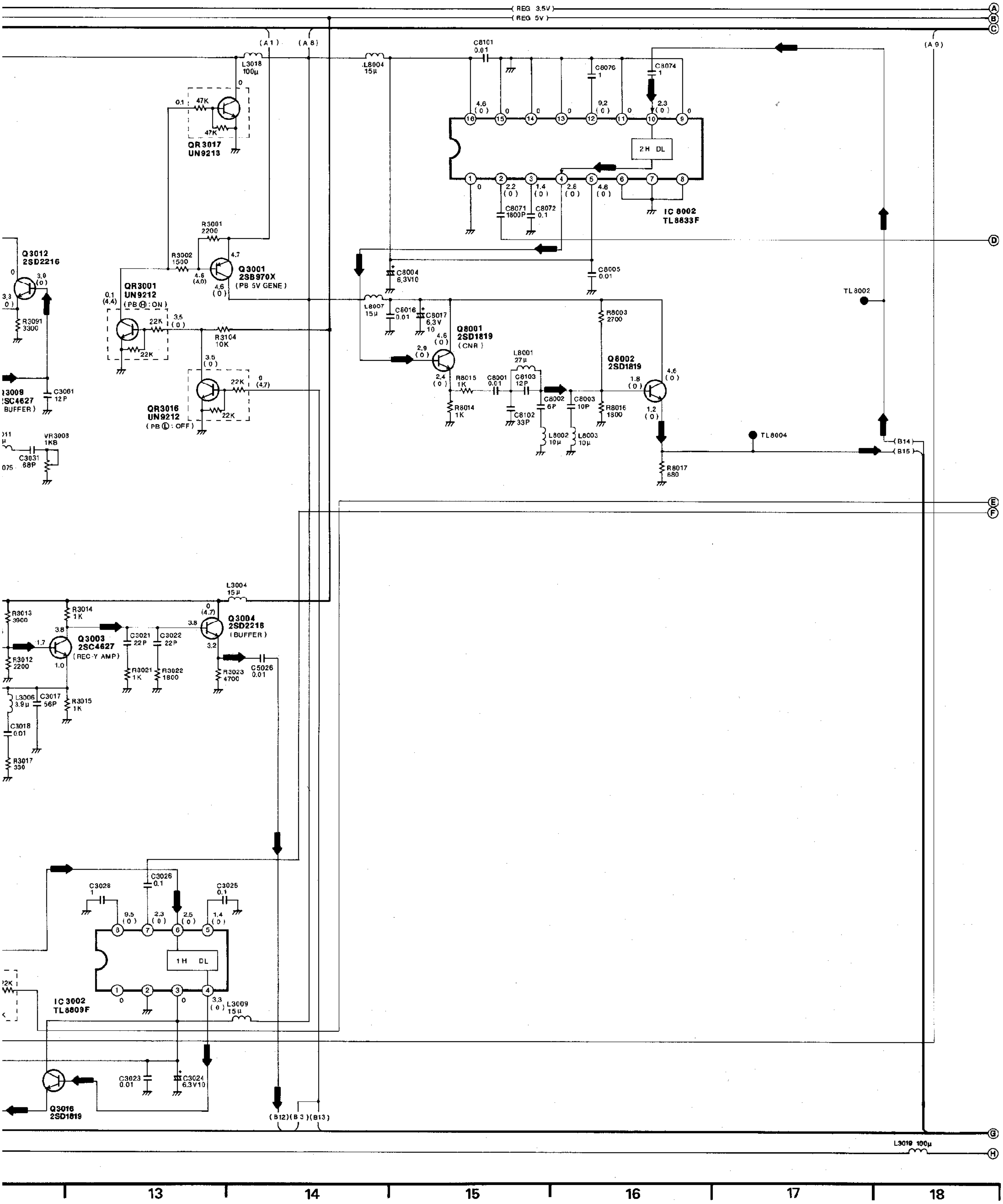

TO POWER
GND
VIDEO GND
VIDEO 5V
REG 3.5V
REG 5V
TO SYSTEM CTL & SERVO
SVHS
SIO
PB
GND
GND
SDET
GAIN CTL
VENV DET
VLP
5PS DATA
REM SW
REM LED
5PSCK
TO POWER
RF 5V
SYSREG 5V
TO JACK (A)
FP3001 (B)
CKB 11
CKB 10
CKB 9
CKB 8
CKB 7
CKB 6
CKB 5
CKB 4
CKB 3
CKB 2
CKB 1
FP1501-1 SYSREG 5V 11
FP1501-2 5PSCK 10
FP1501-3 REM RED 9
FP1501-4 RF 5V 8
FP1501-5 REM SW 7
FP1501-6 5PS DATA 6
FP1501-7 V-OUT 5
FP1501-8 A GND 4
FP1501-9 V GND 3
FP1501-10 AOUT (L) 2
FP1501-11 EAR P. OUT 1
CL3004
TO AUDIO
EAR P. OUT
A. OUT (L)
TO VITC
YFRMVITC
BFP
SYNC
YTOVITC
TO CAMERA
B3001 (C) VJS2961C030
CKC 1 B302-1 R-Y 1
CKC 2 B302-2 B-Y 2
CKC 3 B302-3 Y 3
CKC 4 B302-4 SYNC 4
CKC 5 B302-5 SIO 5
CKC 6 B302-6 GND ANA 6
B302-7 GND ANA 7
CKC 8 B302-8 CAM 5V 8
B302-9 CAM 5V 9
CKC 10 B302-10 CAM 9V 10
B302-11 CAM 9V 11
CKC 12 B302-12 NOREG 12
B302-13 NOREG 13
CKC 14 B302-14 14
CKC 15 B302-15 BFP 15
CKC 16 B302-16 16
B302-17 IR A 17
CKC 18 B302-18 NOREG GND 18
B302-19 NOREG GND 19
CKC 20 B302-20 CAM 15V 20
CKC 21 B302-21 CAM -8V 21
CKC 22 B302-22 CAM 3.5V 22
B302-23 CAM 3.5V 23
CKC 24 B302-24 GND DIGI 24
B302-25 GND DIGI 25
CKC 26 B302-26 CAM CLOCK 26
CKC 27 B302-27 CAM TEST 27
CKC 28 B302-28 28
CKC 29 B302-29 PCBM (B-Y) 29
CKC 30 B302-30 PCBM (R-Y) 30
TO SYSTEM CTL & SERVO
CAM TEST
CAM CLOCK
LINE
Y IN
REC BLK
REC DATA
TO POWER
CAM 9V
NOREG
CAM 15V
CAM -8V
CAM 3.5V
NOREG GND
GND DIGI
CAM 5V
TO VITC
CAM 5V
TITLE
VIDE GND
REG 5V
R3055 2200
QR3009 UN9212 (VHS Ⓗ: ON)
22K
22K
Q3011 2SB1462 (AMP)
1.6
1.1
IC3001-18 REC/PLAY 0.72Vp-p (H-RATE) COLOUR BAR
CL3006
CL3005
IC 3001 VEFH25D
AN2263
VLF0986
0.01
0.33
D3004 MA143
0.01
0.01
82μ
15P
0.01
TL3001
R3050 68
C3004 4V470
C3091 10V33
C3092 16V22
R3048 22K
R3128 470K
47K
C3093 6.3V33
L3001 270μ
L3024 100μ
C3075 6.3V10
IC3001-1 REC 1.2Vp-p (H-RATE) COLOUR BAR
C3060 16V4.7
R3059 27K
Q3027 2SD2216
C3102
Q3026 2SD2216 (MIX)
ENV DET
PORTABLE OFF
CHR2 ART V.H
S/V DET
PEAK ING
PB S/V
DIFF
HSS
FSC TRAP
VCC2
EVF
CHR MIX
CHR MIX 2
VIDEO AGC
DET
SUB CLMP
AGC DET
REC DATE VITC
ART V.H.
CLMP
LINE
CAM
EE LEV
VV Y CLIP
SUB LPF
8.2K
47K
10K
10K
1M
11K
22K
R8076 18K
R3121 10K
R8071 1K
C3002 4V47
L3003 82μ
C3005 15
R3098 1M
C3076 25V4.7
R3080 1500
C8066 1000P
REG 5V
L3002 120μ
(B21)
G
F
E
D
C
B
A
1
2
3
4
5
6

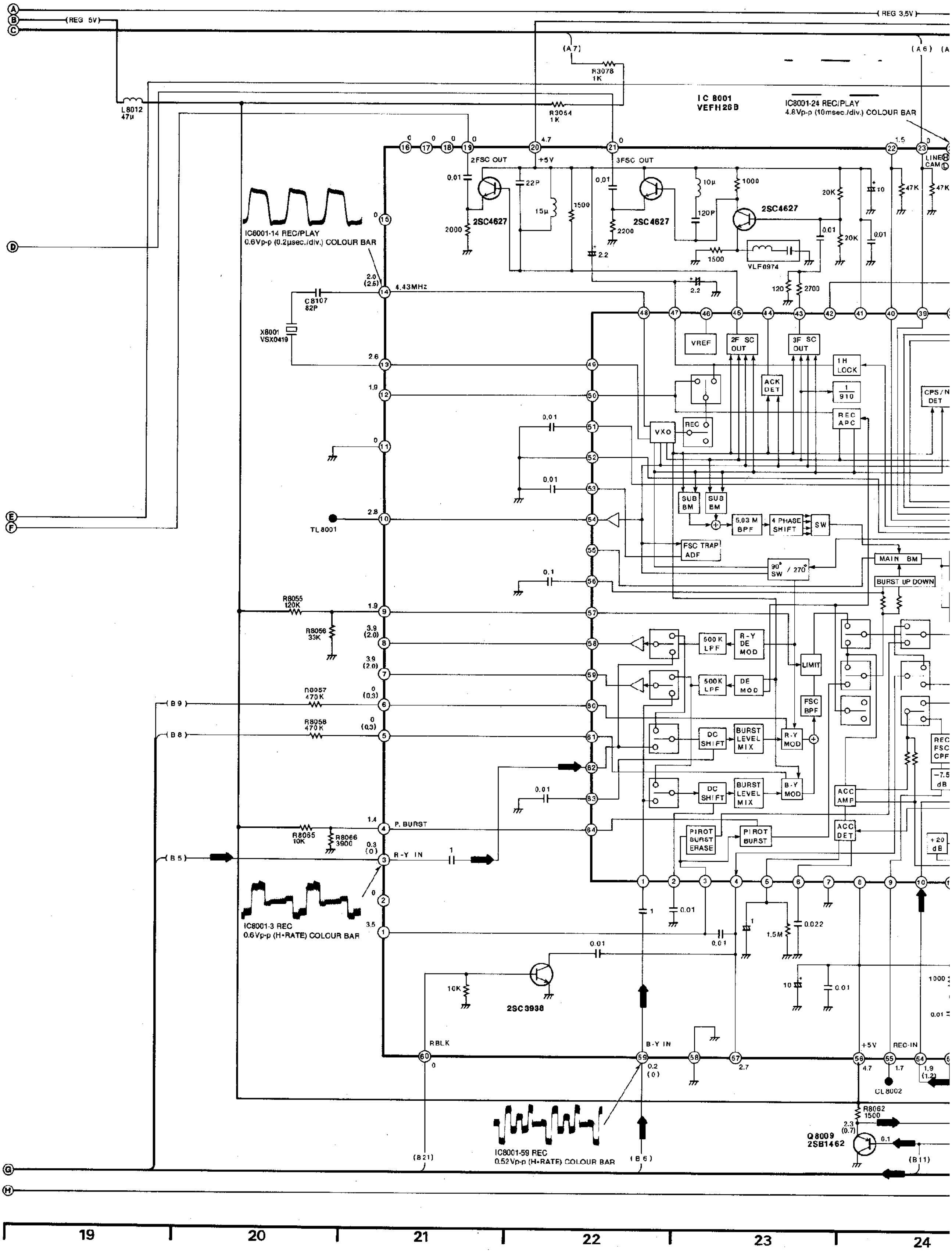
C DIAGRAM

MAIN SIGNAL PATH IN REC MODE

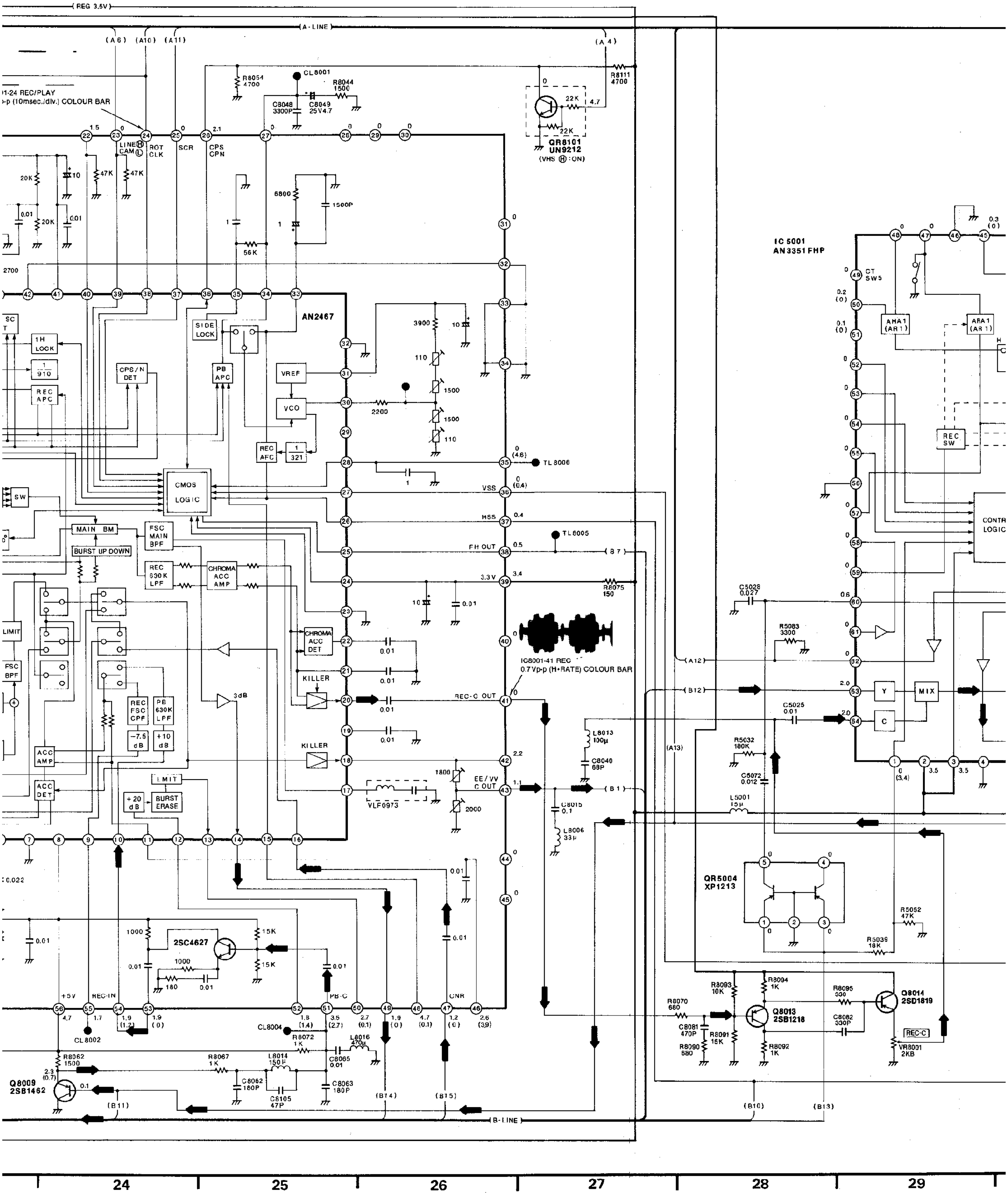

A · LINE
B · LINE
MA
L3015 56µ
C3042 47P
R3042 1000
C3043 22P
C3081 56P
R3103 10K
C3087 0.1
CL3002
CL3007
CL3008
CL3009
CL3003
CL3001
CL3010
CL3012
TL3003
TL3004
RF (S-VHS)
COS EQ
(VHS) RF
REC Y-OUT
RF-IN
REG 3.5V
EMP OUT
H SW
IC3001-36 REC
1.3Vp-p (V·RATE)
COLOUR BAR
IC3001-37 PLAY
0.4Vp-p (V·RATE) COLOUR BAR
IC3001-53 REC
4.4Vp-p (H·RATE)
COLOUR BAR
Q3012 2SD2216
Q3009 2SC4627 (BUFFER)
Q3008 2SC4627
Q3025 2SD1819 (BUFFER)
Q3014 2SB1482 (PB-Y AMP)
Q3016 2SD1819
QR3018 UN5212 (INV.)
IC3002 TL8809F
VR3001 1KB
VR3005 1KB
VR3008 1KB
REC Y
YNR
PB VCC
PBY LEV
SL IN
S/V
PB S/Y
SUB LPF
DEM
LIM
DOP
ENV
3µS DL
DOC
LPF
HPF
AMP
GCA
6dB
629 TRAP
RFAGC
DET
MOD
DL
SUB CLMP
M-LPF
NL E / N.DE
PLJM
REC DATE VITC
XP MIX
HSS
CLMP
WEXT
W/D CLIP
1/2 FH
ME
FF
FSI
MIX
BPF
SUB NC
VCCI
GND1
SY
VY
DY
MOD IN (S)
MOD IN (V)
(B10)
(B11)
7
8
9
10
11
12

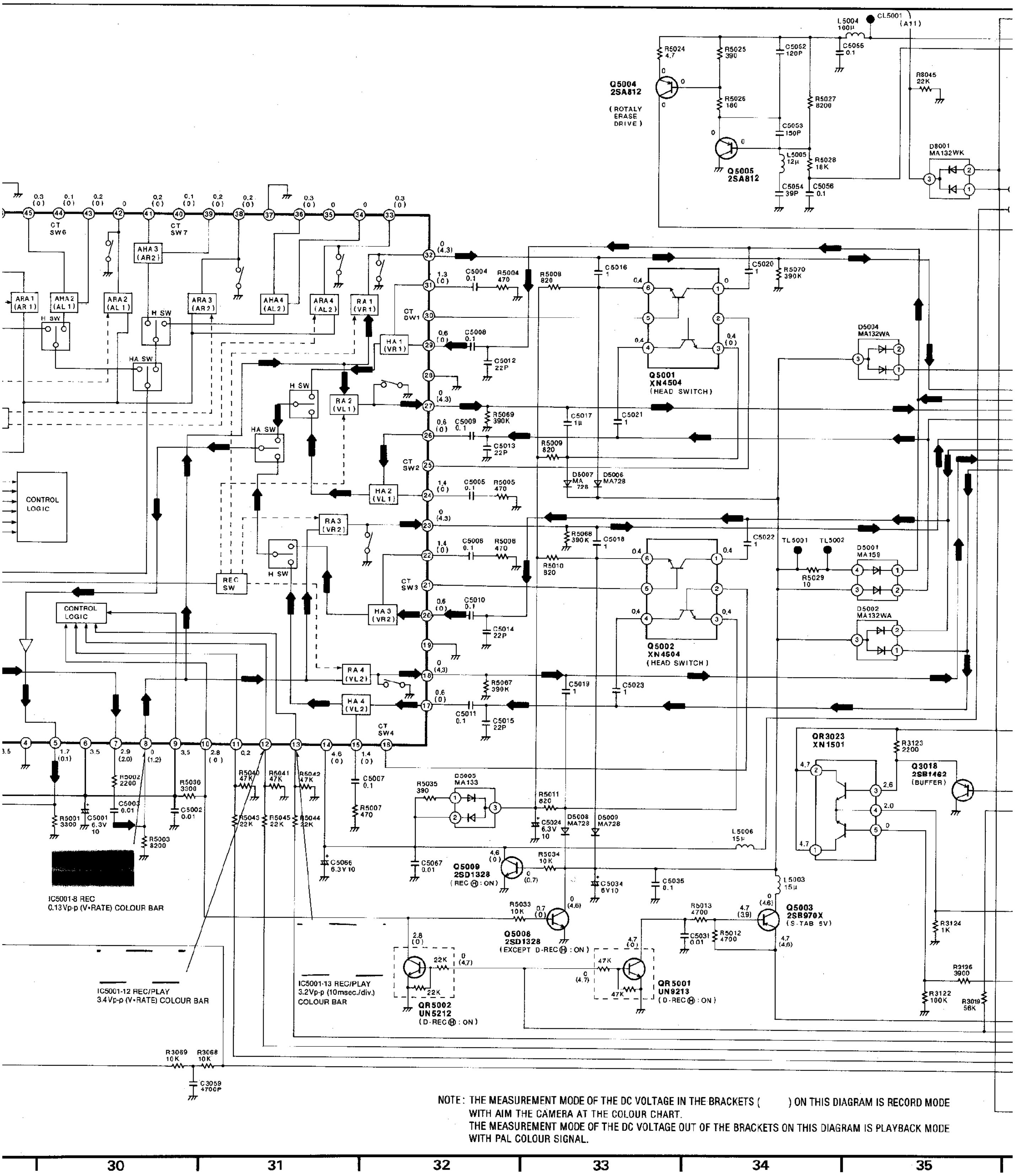
MAIN SIGNAL PATH IN PLAYBACK MODE


REG 3.5V
REG 5V
A
B
C
D
E
F
G
H
(A1)
(A8)
(A9)
L3018 100µ
QR3017 UN9213
47K
47K
0.1
0
R3001 2200
R3002 1500
Q3001 2SB970X (PB 5V GENE)
4.7
4.6 (4.0)
4.6 (0)
QR3001 UN9212 (PB H : ON)
0.1 (4.4)
22K
22K
3.5 (0)
R3104 10K
QR3016 UN9212 (PB L : OFF)
3.5 (0)
0 (4.7)
Q3012 2SD2216
3.9 (0)
3.3 (0)
R3091 3300
3009 2SC4627 BUFFER)
C3061 12P
VR3008 1KB
C3031 68P
L8004 15µ
C8101 0.01
C8076 1
C8074 1
4.6 (0)
9.2 (0)
2.3 (0)
2H DL
2.2 (0)
1.4 (0)
2.6 (0)
4.6 (0)
C8071 1800P
C8072 0.1
IC 8002 TL8633F
C8004 6.3V10
C8005 0.01
L8007 15µ
C8016 0.01
C8017 6.3V 10
Q8001 2SD1819 (CNR)
4.6 (0)
2.9 (0)
2.4 (0)
R8015 1K
C8001 0.01
L8001 27µ
C8103 12P
C8102 33P
R8014 1K
C8002 6P
C8003 10P
L8002 10µ
L8003 10µ
R8003 2700
Q8002 2SD1819
1.8 (0)
4.6 (0)
1.2 (0)
R8016 1800
R8017 680
TL8002
TL8004
(B14)
(B15)
L3004 15µ
R3013 3900
R3014 1K
3.8
1.7
Q3003 2SC4627 (REC-Y AMP)
1.0
R3012 2200
C3021 22P
C3022 22P
0 (4.7)
3.8
Q3004 2SD2216 (BUFFER)
3.2
R3021 1K
R3022 1800
R3023 4700
C5026 0.01
L3006 3.9µ
C3017 56P
R3015 1K
C3018 0.01
R3017 330
C3028 1
C3026 0.1
C3025 0.1
9.5 (0)
2.3 (0)
2.5 (0)
1.4 (0)
1H DL
3.3 (0)
IC3002 TL8609F
L3009 15µ
C3023 0.01
C3024 6.3V10
Q3016 2SD1819
(B12)
(B3)
(B13)
L3019 100µ
13
14
15
16
17
18

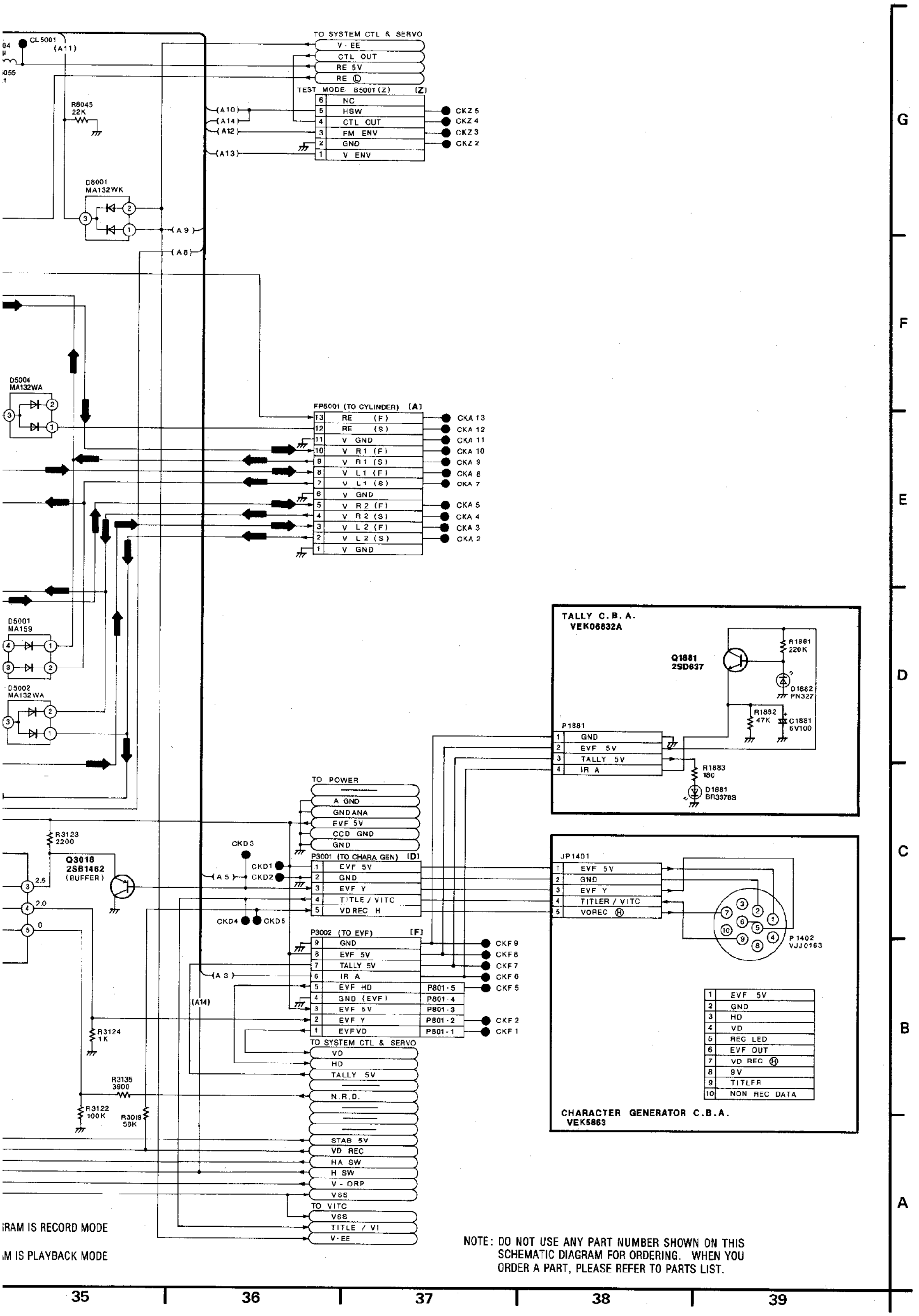


A
B
C
D
E
F
G
H
REG 5V
REG 3.5V
A7
A6
R3078 1K
R3064 1K
L8012 47µ
IC 8001
VEFH26B
IC8001-24 REC/PLAY
4.8Vp-p (10msec./div.) COLOUR BAR
IC8001-14 REC/PLAY
0.6Vp-p (0.2µsec./div.) COLOUR BAR
2FSC OUT
+5V
3FSC OUT
LINE
CAM
2SC4627
2SC4627
2SC4627
VLF6974
4.43MHZ
C8107 82P
X8001 VSX0419
TL8001
VREF
2F SC OUT
3F SC OUT
ACK DET
1H LOCK
1/910
REC APC
CPS/N DET
VXO
REC
SUB BM
SUB BM
5.03 M BPF
4 PHASE SHIFT
SW
FSC TRAP ADF
90° SW / 270°
MAIN BM
BURST UP DOWN
R8055 120K
R8056 33K
R8057 470K
R8058 470K
R8065 10K
R8066 3900
500K LPF
R-Y DE MOD
500K LPF
DE MOD
LIMIT
FSC BPF
DC SHIFT
BURST LEVEL MIX
R-Y MOD
DC SHIFT
BURST LEVEL MIX
B-Y MOD
ACC AMP
ACC DET
PIROT BURST ERASE
PIROT BURST
REC FSC CPF
-7.5 dB
+20 dB
P. BURST
R-Y IN
IC8001-3 REC
0.6Vp-p (H-RATE) COLOUR BAR
2SC3938
RBLK
B-Y IN
+5V
REC-IN
CL8002
R8062 1500
Q8009 2SB1462
IC8001-59 REC
0.52Vp-p (H-RATE) COLOUR BAR
B9
B8
B5
B21
B6
B11
19
20
21
22
23
24


REG 3.5V
A-LINE
B-LINE
(A6) (A10) (A11) (A4)
R8054 4700
CL8001
R8044 1500
C8048 3300P
C8049 25V4.7
R8111 4700
QR8101 UN9212
(VHS Ⓗ:ON)
22K
1-24 REC/PLAY
p-p (10msec./div.) COLOUR BAR
LINE Ⓗ CAM Ⓛ
ROT CLK
SCR
CPS CPN
6800
1500P
56K
2700
AN2467
SIDE LOCK
1H LOCK
1/910
CPS/N DET
REC APC
PB APC
VREF
VCO
REC AFC
1/321
3900
110
1500
2200
CMOS LOGIC
TL8006
VSS
HSS
FH OUT
3.3V
TL8005
R8075 150
SW
MAIN BM
BURST UP DOWN
FSC MAIN BPF
REC 630K LPF
CHROMA ACC AMP
LIMIT
FSC BPF
CHROMA ACC DET
KILLER
REC-C OUT
IC8001-41 REC
0.7Vp-p (H-RATE) COLOUR BAR
3dB
REC FSC CPF
PB 630K LPF
-7.5 dB
+10 dB
ACC AMP
ACC DET
LIMIT
+20 dB
BURST ERASE
L8013 100µ
C8040 68P
EE/VV C OUT
VLF0973
1800
2000
C8015 0.1
L8006 33µ
2SC4627
1000
15K
+5V
REC-IN
PB-C
CNR
CL8002
CL8004
R8072 1K
L8016 470µ
C8065 0.01
R8062 1500
R8067 1K
L8014 150µ
C8062 180P
C8105 47P
C8063 180P
Q8009 2SB1462
(B11) (B14) (B15) (B1) (B7) (B12) (A12) (A13) (B10) (B13)
IC5001 AN3351FHP
CT SW5
AHA1 (AR1)
REC SW
CONTR LOGIC
C5028 0.027
R5083 3300
Y
C
MIX
C5025 0.01
R5032 180K
C5072 0.012
L5001 15µ
QR5004 XP1213
R5052 47K
R5039 18K
R8093 10K
R8094 1K
R8070 680
C8081 470P
R8091 15K
R8090 680
Q8013 2SB1218
R8092 1K
R8095 330
C8082 330P
Q8014 2SD1819
REC-C
VR8001 2KB
24
25
26
27
28
29


Q5004
2SA812
(ROTALY ERASE DRIVE)
Q5005
2SA812
L5004 100µ
CL5001 (A11)
R5024 4.7
R5025 390
R5026 180
R5027 8200
R5028 18K
C5052 120P
C5053 150P
C5054 39P
C5055 0.1
C5056 0.1
L5005 12µ
R8045 22K
D8001 MA132WK
CT SW6
CT SW7
AHA3 (AR2)
ARA1 (AR1)
AHA2 (AL1)
ARA2 (AL1)
ARA3 (AR2)
AHA4 (AL2)
ARA4 (AL2)
RA1 (VR1)
HA1 (VR1)
RA2 (VL1)
HA2 (VL1)
RA3 (VR2)
HA3 (VR2)
RA4 (VL2)
HA4 (VL2)
H SW
HA SW
REC SW
CONTROL LOGIC
CT SW1
CT SW2
CT SW3
CT SW4
C5004 0.1
R5004 470
C5008 0.1
C5012 22P
C5009 0.1
C5013 22P
R5069 390K
C5005 0.1
R5005 470
C5006 0.1
R5006 470
C5010 0.1
C5014 22P
C5011 0.1
C5015 22P
R5067 390K
R5008 820
R5009 820
R5010 820
R5068 390K
C5016 1
C5017 1µ
C5018 1
C5019 1
C5020 1
C5021 1
C5022 1
C5023 1
R5070 390K
Q5001
XN4504
(HEAD SWITCH)
Q5002
XN4504
(HEAD SWITCH)
D5006 MA728
D5007 MA 728
D5004 MA132WA
D5001 MA159
D5002 MA132WA
TL5001
TL5002
R5029 10
QR3023
XN1501
R3123 2200
Q3018
2SB1462
(BUFFER)
R5001 3300
C5001 6.3V 10
R5002 2200
C5003 0.01
R5003 8200
R5036 3300
C5002 0.01
R5040 47K
R5041 47K
R5042 47K
R5043 22K
R5045 22K
R5044 22K
C5007 0.1
R5007 470
C5066 6.3V 10
R5035 390
D5005 MA133
C5067 0.01
Q5009
2SD1328
(REC Ⓗ : ON)
R5011 820
C5024 6.3V 10
D5008 MA728
D5009 MA728
R5034 10K
C5034 6V 10
C5035 0.1
L5006 15µ
L5003 15µ
R5033 10K
Q5006
2SD1328
(EXCEPT D-REC Ⓗ : ON)
R5013 4700
C5031 0.01
R5012 4700
Q5003
2SB970X
(S-TAB 5V)
R3124 1K
R3136 3900
R3122 100K
R3019 56K
QR5002
UN5212
(D-REC Ⓗ : ON)
QR5001
UN9213
(D-REC Ⓗ : ON)
22K
47K
R3069 10K
R3068 10K
C3059 4700P
IC5001-8 REC
0.13Vp-p (V·RATE) COLOUR BAR
IC5001-12 REC/PLAY
3.4Vp-p (V·RATE) COLOUR BAR
IC5001-13 REC/PLAY
3.2Vp-p (10msec./div.)
COLOUR BAR
30
31
32
33
34
35

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS (   ) ON THIS DIAGRAM IS RECORD MODE WITH AIM THE CAMERA AT THE COLOUR CHART.
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SIGNAL.

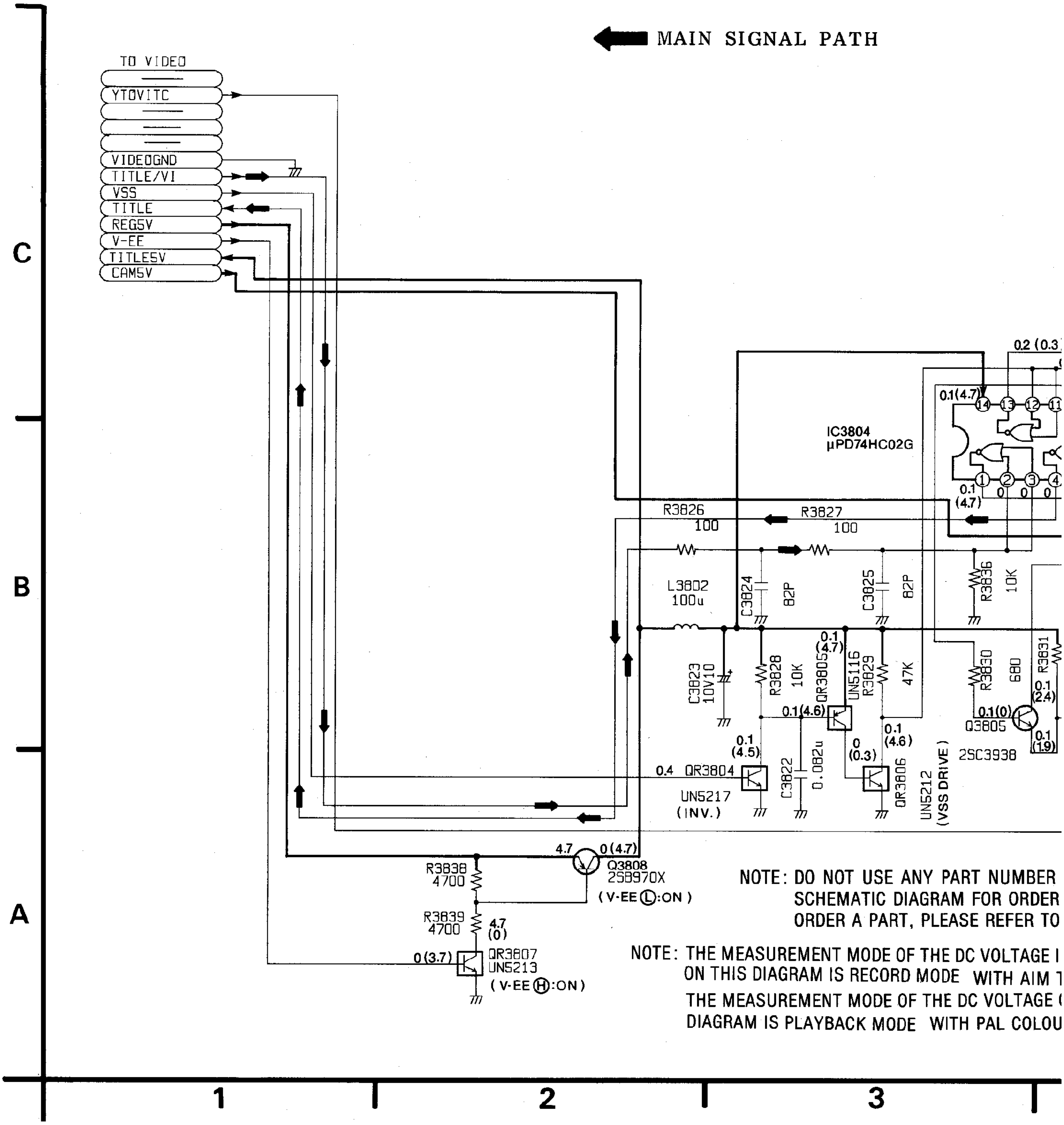

TO SYSTEM CTL & SERVO
V · EE
CTL OUT
RE 5V
RE Ⓛ
TEST MODE B5001(Z) (Z)
NC
HSW
CTL OUT
FM ENV
GND
V ENV
CKZ 5
CKZ 4
CKZ 3
CKZ 2
CL5001
(A11)
R8045
22K
D8001
MA132WK
(A10)
(A14)
(A12)
(A13)
(A 9)
(A 8)
D5004
MA132WA
FP5001 (TO CYLINDER) (A)
RE (F)
RE (S)
V GND
V R1 (F)
V R1 (S)
V L1 (F)
V L1 (S)
V GND
V R2 (F)
V R2 (S)
V L2 (F)
V L2 (S)
V GND
CKA 13
CKA 12
CKA 11
CKA 10
CKA 9
CKA 8
CKA 7
CKA 5
CKA 4
CKA 3
CKA 2
D5001
MA159
D5002
MA132WA
TALLY C.B.A.
VEK06832A
Q1881
2SD637
R1881
220K
D1882
PN327
R1882
47K
C1881
6V100
P1881
GND
EVF 5V
TALLY 5V
IR A
R1883
180
D1881
BR3378S
TO POWER
A GND
GND ANA
EVF 5V
CCD GND
GND
R3123
2200
Q3018
2SB1462
(BUFFER)
CKD3
CKD1
CKD2
CKD4
CKD5
(A 5)
P3001 (TO CHARA GEN) (D)
EVF 5V
GND
EVF Y
TITLE / VITC
VD REC H
2.6
2.0
0
JP1401
EVF 5V
GND
EVF Y
TITLER / VITC
VDREC Ⓗ
P 1402
VJJ0163
P3002 (TO EVF) (F)
GND
EVF 5V
TALLY 5V
IR A
EVF HD
GND (EVF)
EVF 5V
EVF Y
EVF VD
P801 · 5
P801 · 4
P801 · 3
P801 · 2
P801 · 1
CKF 9
CKF 8
CKF 7
CKF 6
CKF 5
CKF 2
CKF 1
(A 3)
(A14)
R3124
1K
1 EVF 5V
2 GND
3 HD
4 VD
5 REC LED
6 EVF OUT
7 VD REC Ⓗ
8 9V
9 TITLER
10 NON REC DATA
CHARACTER GENERATOR C.B.A.
VEK5863
TO SYSTEM CTL & SERVO
VD
HD
TALLY 5V
N.R.D.
STAB 5V
VD REC
HA SW
H SW
V · ORP
VSS
TO VITC
VSS
TITLE / VI
V · EE
R3135
3900
R3122
100K
R3019
56K
G
F
E
D
C
B
A
35
36
37
38
39

IRAM IS RECORD MODE

IM IS PLAYBACK MODE

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

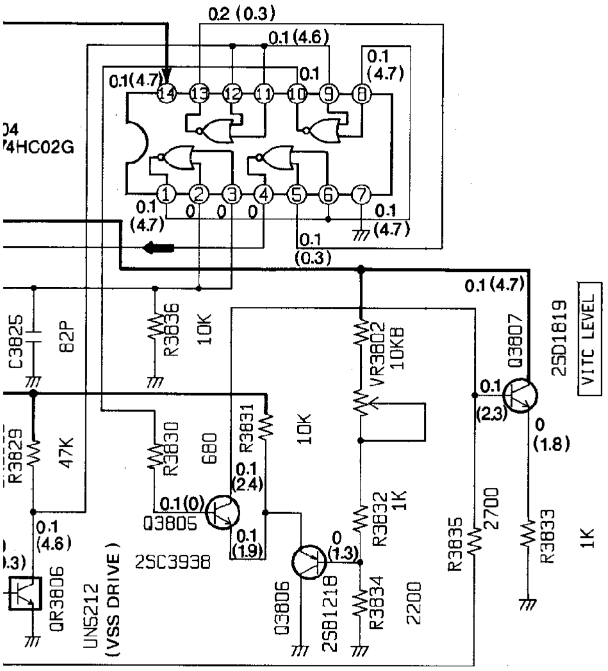
3-19. VITC SCHEMATIC DIAGRAM


MAIN SIGNAL PATH
TO VIDEO
YTOVITC
VIDEOGND
TITLE/VI
VSS
TITLE
REG5V
V-EE
TITLE5V
CAM5V
C
B
A
1
2
3
IC3804
µPD74HC02G
0.2 (0.3
0.1(4.7)
14
13
12
11
1
2
3
4
0.1
(4.7)
0
0
0
R3826
100
R3827
100
L3802
100u
C3824
82P
C3825
82P
R3836
10K
C3823
10V10
R3828
10K
0.1
(4.7)
QR3805
UN5116
R3829
47K
R3830
680
R3831
0.1
(2.4)
0.1(0)
Q3805
2SC3938
0.1
(1.9)
0.1(4.6)
0.1
(4.5)
0
(0.3)
0.1
(4.6)
0.4
QR3804
UN5217
(INV.)
C3822
0.082u
QR3806
UN5212
(VSS DRIVE)
4.7
0 (4.7)
Q3808
2SB970X
(V-EE Ⓛ:ON)
R3838
4700
R3839
4700
4.7
(0)
0 (3.7)
QR3807
UN5213
(V-EE Ⓗ:ON)

NOTE: DO NOT USE ANY PART NUMBER
SCHEMATIC DIAGRAM FOR ORDER
ORDER A PART, PLEASE REFER TO

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE I
ON THIS DIAGRAM IS RECORD MODE WITH AIM T
THE MEASUREMENT MODE OF THE DC VOLTAGE (
DIAGRAM IS PLAYBACK MODE WITH PAL COLOU

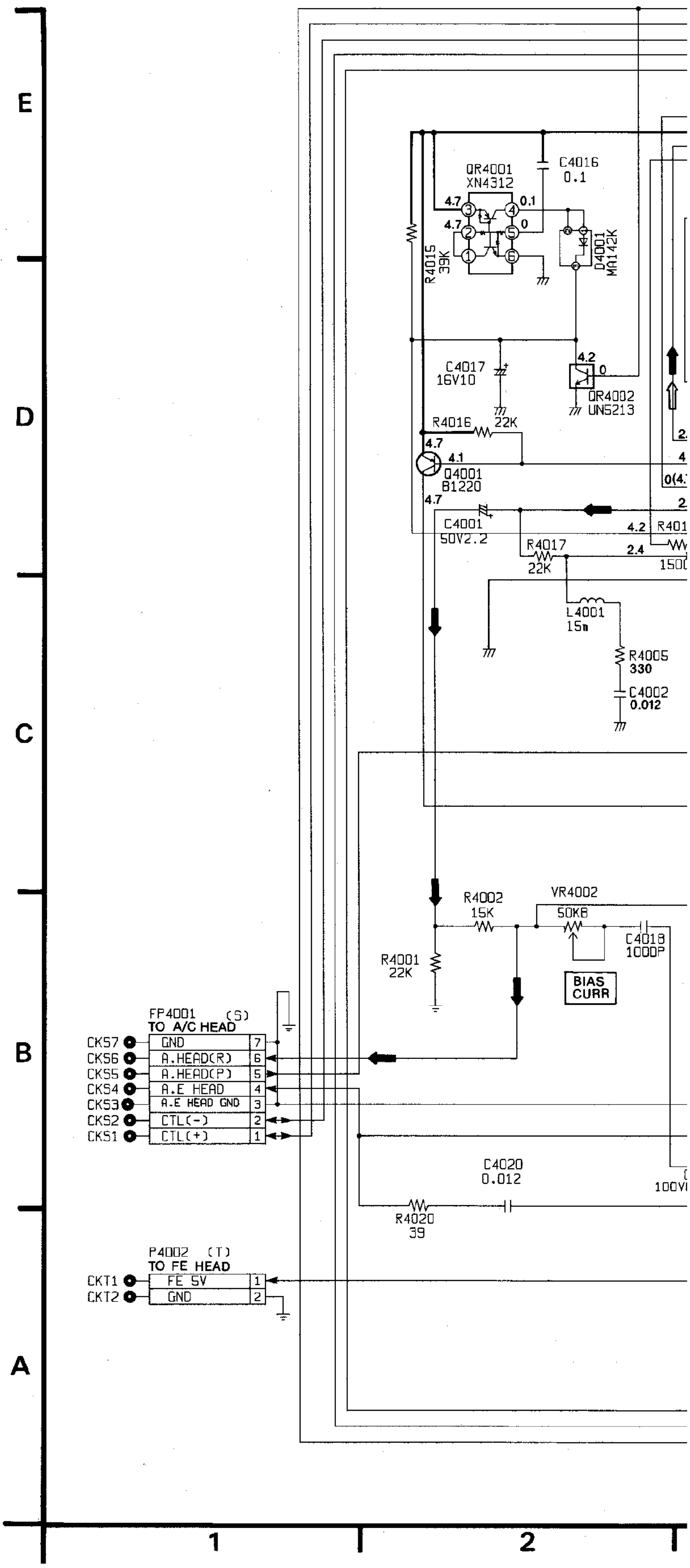
H


0.2 (0.3)
0.1 (4.6)
0.1 (4.7)
0.1(4.7)
0.1
4
74HC02G
0.1
(4.7)
0
0
0
0.1
(4.7)
0.1
(0.3)
0.1 (4.7)
C3825
82P
R3836
10K
R3829
47K
0.1
(4.6)
.3)
QR3806
UN5212
(VSS DRIVE)
R3830
680
R3831
10K
0.1
(2.4)
0.1(0)
Q3805
2SC3938
0.1
(1.9)
0
(1.3)
Q3806
2SB1218
VR3802
10KB
R3832
1K
R3834
2200
R3835
2700
0.1
(2.3)
Q3807
2SD1819
VITC LEVEL
0
(1.8)
R3833
1K

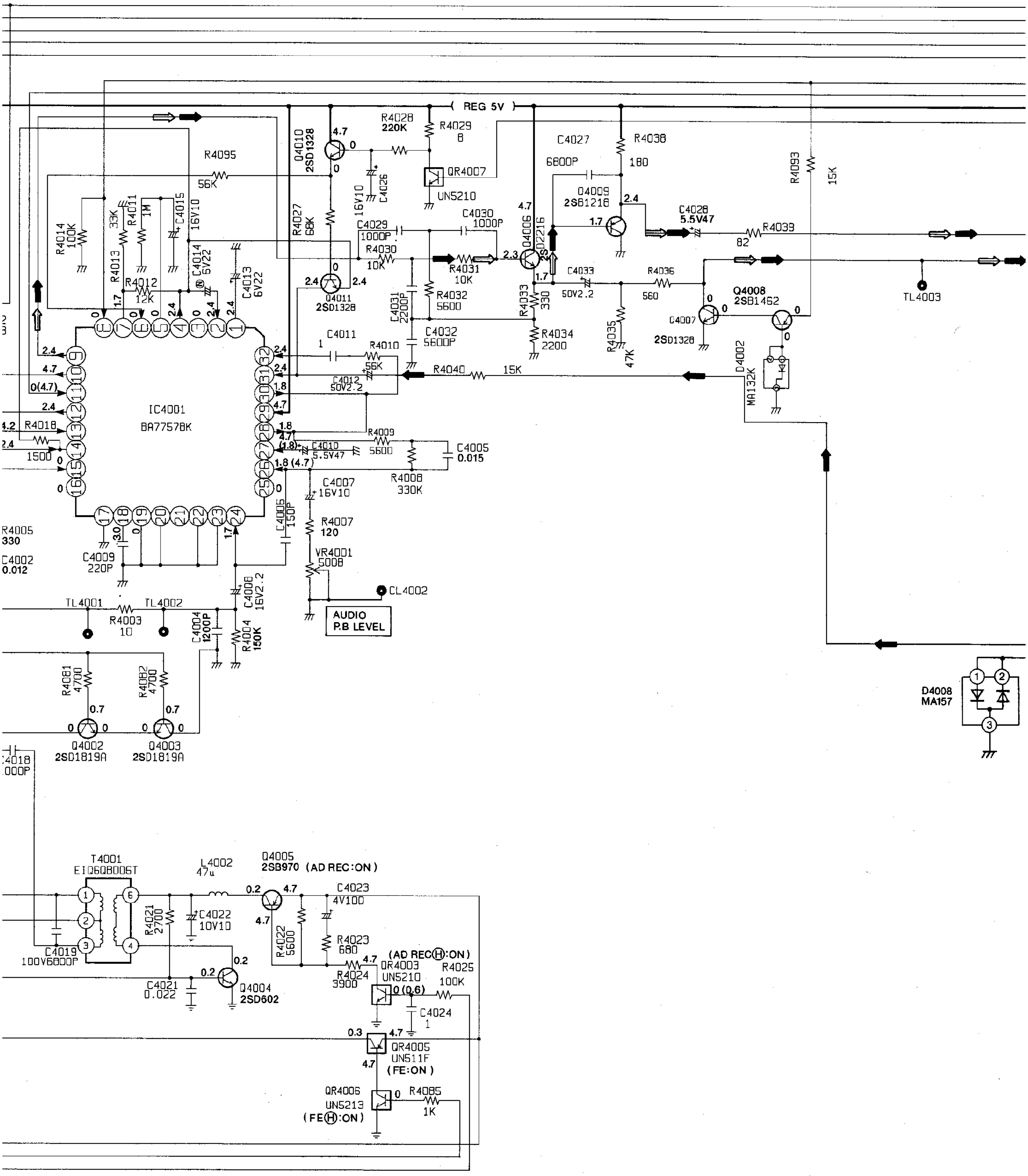
USE ANY PART NUMBER SHOWN ON THIS
TIC DIAGRAM FOR ORDERING. WHEN YOU
PART, PLEASE REFER TO PARTS LIST.

ODE OF THE DC VOLTAGE IN THE BRACKETS (   )
ECORD MODE WITH AIM THE CAMERA AT THE COLOUR CHART.
ODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS
K MODE WITH PAL COLOUR SIGNAL.

3-20. AUDIO SCHEMATIC DIAGRAM


E
D
C
B
A
1
2
QR4001
XN4312
C4016
0.1
4.7
0.1
4.7
0
R4015
39K
D4001
MA142K
C4017
16V10
4.2
0
QR4002
UN5213
R4016
22K
4.7
4.1
Q4001
B1220
4.7
C4001
50V2.2
R4017
22K
4.2
R401
2.4
150
2.
4
0(4.
2.
L4001
15m
R4005
330
C4002
0.012
R4002
15K
VR4002
50KB
C4018
1000P
R4001
22K
BIAS
CURR
FP4001 (S)
TO A/C HEAD
CKS7 GND 7
CKS6 A.HEAD(R) 6
CKS5 A.HEAD(P) 5
CKS4 A.E HEAD 4
CKS3 A.E HEAD GND 3
CKS2 CTL(-) 2
CKS1 CTL(+) 1
C4020
0.012
R4020
39
100V
P4002 (T)
TO FE HEAD
CKT1 FE 5V 1
CKT2 GND 2

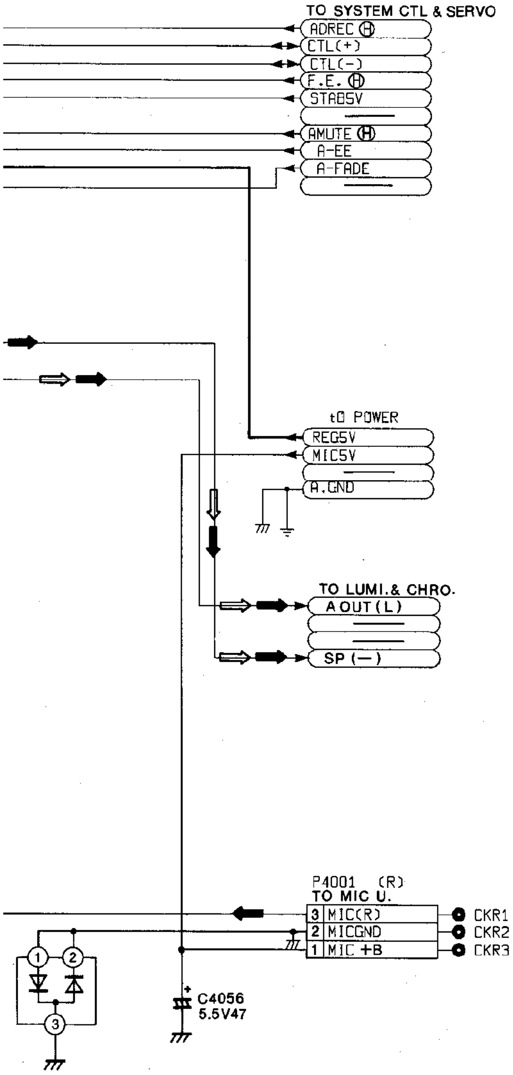
⬅ MAIN SIGNAL PATH IN REC MODE ⇦ MAIN SIGNAL PATH IN PLAYI


REG 5V
IC4001
BA7757BK
Q4010
2SD1328
Q4011
2SD1328
Q4006
2SD2216
Q4009
2SB1218
Q4008
2SB1462
Q4007
2SD1328
QR4007
UN5210
D4002
MA132K
D4008
MA157
R4095
56K
R4014
100K
R4013
33K
R4011
1M
C4015
16V10
C4014
6V22
C4013
6V22
R4012
12K
R4027
68K
R4028
220K
R4029
8
C4026
16V10
C4029
1000P
C4030
1000P
R4030
10K
R4031
10K
R4032
5600
C4031
2200P
C4032
5600P
R4033
330
R4034
2200
C4033
50V2.2
R4035
47K
R4036
560
C4027
6800P
R4038
180
C4028
5.5V47
R4039
82
R4093
15K
TL4003
C4011
1
R4010
56K
C4012
50V2.2
R4040
15K
R4018
1500
R4009
5600
C4010
5.5V47
C4005
0.015
R4008
330K
C4007
16V10
R4007
120
VR4001
500B
CL4002
AUDIO
P.B LEVEL
C4006
150P
C4008
16V2.2
C4009
220P
R4005
330
C4002
0.012
TL4001
TL4002
R4003
10
C4004
1200P
R4004
150K
R4081
4700
R4082
4700
Q4002
2SD1819A
Q4003
2SD1819A
C4018
000P
T4001
EIQ6QB006T
L4002
47u
Q4005
2SB970 (AD REC:ON)
C4023
4V100
C4022
10V10
R4021
2700
C4019
100V6800P
R4022
5600
R4023
680
R4024
3900
(AD REC(H):ON)
QR4003
UN5210
R4025
100K
C4024
1
C4021
0.022
Q4004
2SD602
QR4005
UN511F
(FE:ON)
QR4006
UN5213
(FE(H):ON)
R4085
1K

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS ( ) ON TI
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THI

PLAYBACK MODE



( ) ON THIS DIAGRAM IS RECORD MODE

KETS ON THIS DIAGRAM IS PLAYBACK MODE

MAIN C.B.A. ADDRESS INFORMATION

POWER Section	
Transistor	
Q1001	G-14
Q1002	E-13
Q1003	G-15
Q1004	G-14
Q1005	F-13
Q1006	E-16
Q1061	G-15
Q1062	G-16
Transistor & Resistor	
QR1002	F-14
QR1006	F-14
QR1061	E-15
Integrated Circuit	
IC1001	F-15
IC1102	E-16
Test Point	
CL1007	G-9
CL1008	G-9
CL1009	G-10
TL1001	E-9
TL1002	E-9
TL1003	E-10
TL1004	E-10
TL1005	E-10
TL1006	E-10
Adjustment	
VR1001	F-9
VR1002	F-9
VR1003	E-8
Connector	
P1001	G-11

ADDRESS INFORMATION

AUDIO Section	
Transistor	
Q4001	B-15
Q4002	A-16
Q4003	A-16
Q4004	A-15
Q4005	A-15
Q4006	B-15
Q4007	B-8
Q4008	B-15
Q4009	B-15
Q4010	B-16
Q4011	B-16
Transistor & Resistor	
QR4001	B-15
QR4002	B-15
QR4003	A-16
QR4005	A-16
QR4006	A-16
QR4007	B-8
Integrated Circuit	
IC4001	B-16
Test Point	
CL4001	B-8
CL4002	B-8
TL4001	B-8
TL4002	A-7
TL4003	B-7
Adjustment	
VR4001	B-8
VR4002	B-8
Connector	
FP4001	A-8
P4001	G-6
P4002	C-1

ADDRESS INFORMATION

LUMINANCE/CHROMINANCE & HEAD AMP Section

Transistor	
Q3001	D-22
Q3008	E-21
Q3009	E-21
Q3011	G-22
Q3012	E-21
Q3014	D-21
Q3016	F-22
Q3018	D-20
Q3022	C-2
Q3025	F-2
Q3026	D-20
Q3027	E-20
Q5001	B-20
Q5002	A-21
Q5003	B-20
Q5004	A-4
Q5005	A-5
Q5008	B-19
Q5009	A-20
Q8001	F-5
Q8002	E-6
Q8009	F-18
Q8013	E-6
Q8014	E-18
Transistor & Resistor	
QR3001	D-22
QR3009	E-20
QR3016	D-22
QR3023	F-4
QR3024	C-2
QR5001	C-19
QR5002	B-3
QR5004	C-21
QR8101	E-19
Integrated Circuit	
IC3001	E-3
IC3002	F-21
IC5001	B-3
IC8001	E-5
IC8002	F-19

Test Point	
CL3001	E-3
CL3002	E-3
CL3003	E-3
CL3004	E-4
CL3005	E-4
CL3006	E-4
CL3007	E-3
CL3008	E-3
CL3009	E-2
CL3010	D-3
CL3011	D-4
CL3012	E-3
CL5001	B-4
CL8001	E-5
CL8002	F-6
CL8003	E-5
CL8004	F-6
TL3001	C-5
TL3003	E-2
TL3004	D-3
TL5001	A-3
TL5002	A-3
TL5003	A-3
TL5004	D-8
TL8001	F-5
TL8002	E-5
TL8004	E-6
TL8005	E-5
TL8006	E-5
Adjustment	
VR3001	D-2
VR3005	F-2
VR3008	E-2
VR8001	E-5
Connector	
B3001	E-22
B5001	C-4
FP3001	B-6
FP5001	A-3
P3001	G-2
P3002	G-4
P3004	G-3

ADDRESS INFORMATION

SUB SERVO Section	
Transistor	
Q2101	B-11
Integrated Circuit	
IC2101	B-14
IC2102	A-14
IC2103	B-13
IC2104	B-13
Test Point	
CL2101	B-9
Connector	
FP2101	A-9
FP2102	A-11

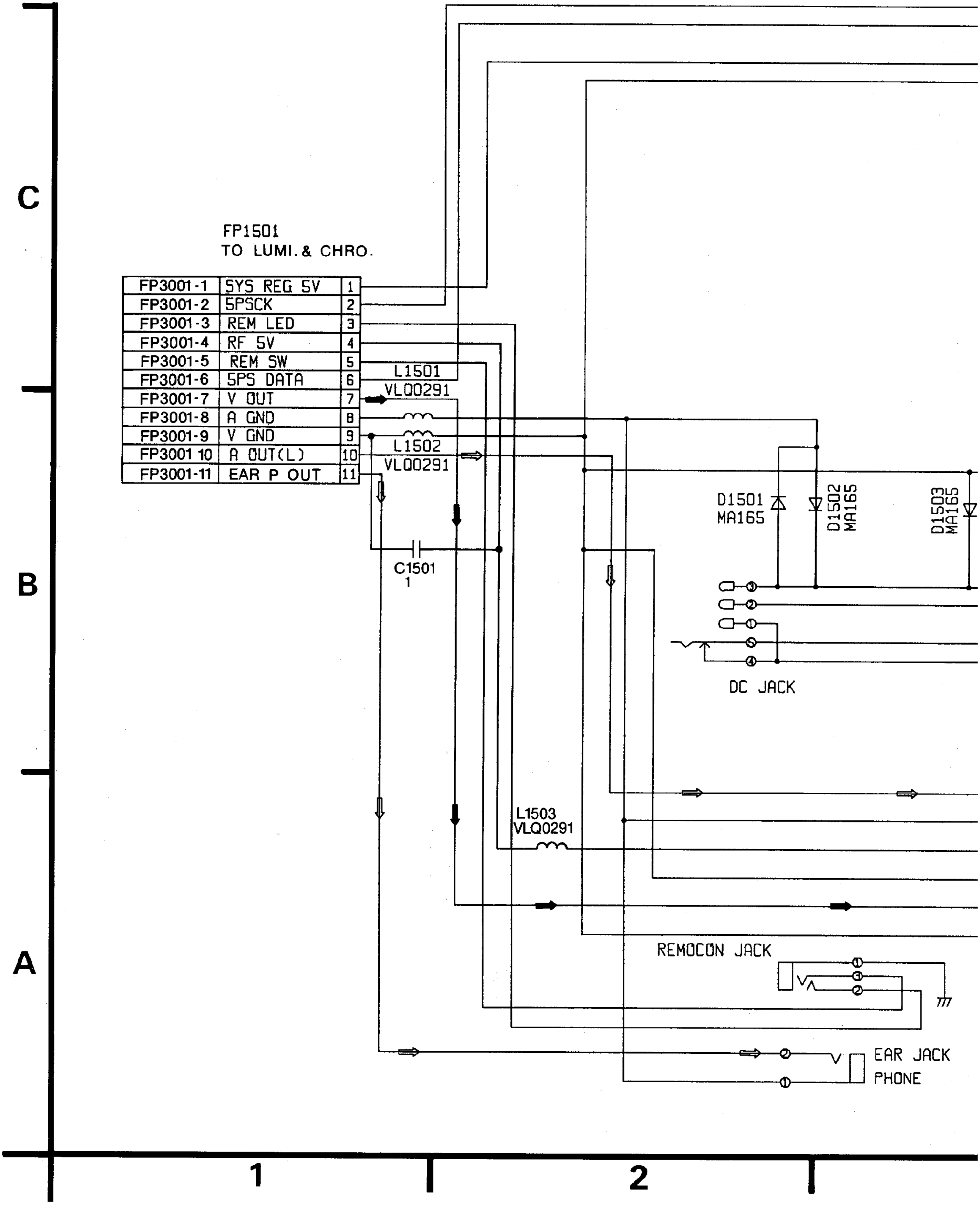
ADDRESS INFORMATION

VITC Section	
Transistor	
Q3805	B-2
Q3806	A-2
Q3807	B-2
Q3808	C-22
Transistor & Resistor	
QR3804	C-21
QR3805	B-21
QR3806	B-2
QR3807	C-22
Test Point	
CL3801	A-1
Integrated Circuit	
IC3804	A-2
Adjustment	
VR3802	A-2

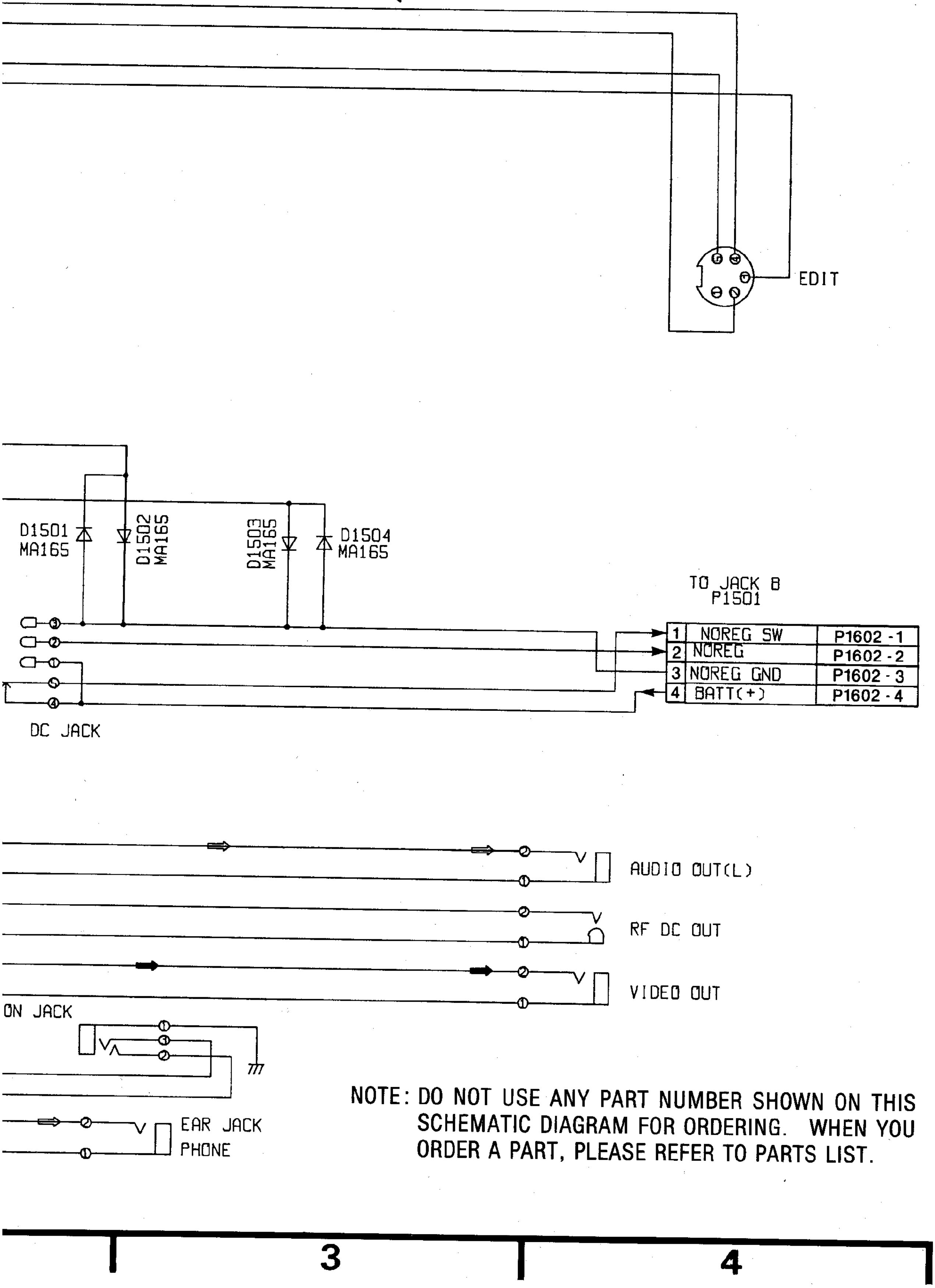
ADDRESS INFORMATION

3-22. AV JACK (A) SCHEMATIC DIAGRAM

VIDEO SIGNAL PATH

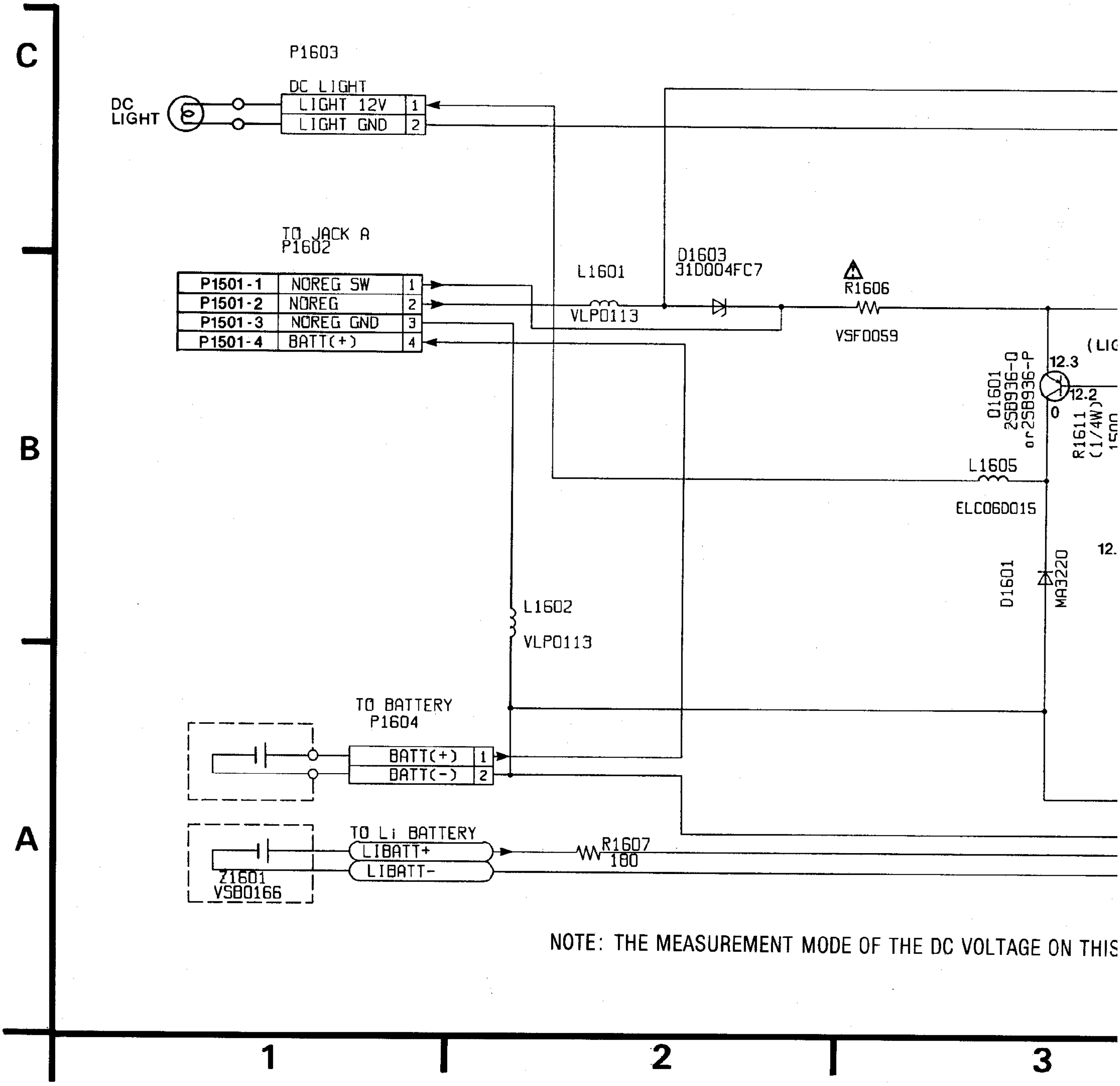

C
B
A
1
2
FP1501
TO LUMI. & CHRO.
FP3001-1 SYS REG 5V 1
FP3001-2 SPSCK 2
FP3001-3 REM LED 3
FP3001-4 RF 5V 4
FP3001-5 REM SW 5
FP3001-6 SPS DATA 6
FP3001-7 V OUT 7
FP3001-8 A GND 8
FP3001-9 V GND 9
FP3001 10 A OUT(L) 10
FP3001-11 EAR P OUT 11
L1501
VLQ0291
L1502
VLQ0291
C1501
1
L1503
VLQ0291
D1501
MA165
D1502
MA165
D1503
MA165
DC JACK
REMOCON JACK
EAR JACK
PHONE

■ VIDEO SIGNAL PATH ⇦ AUDIO SIGNAL PATH

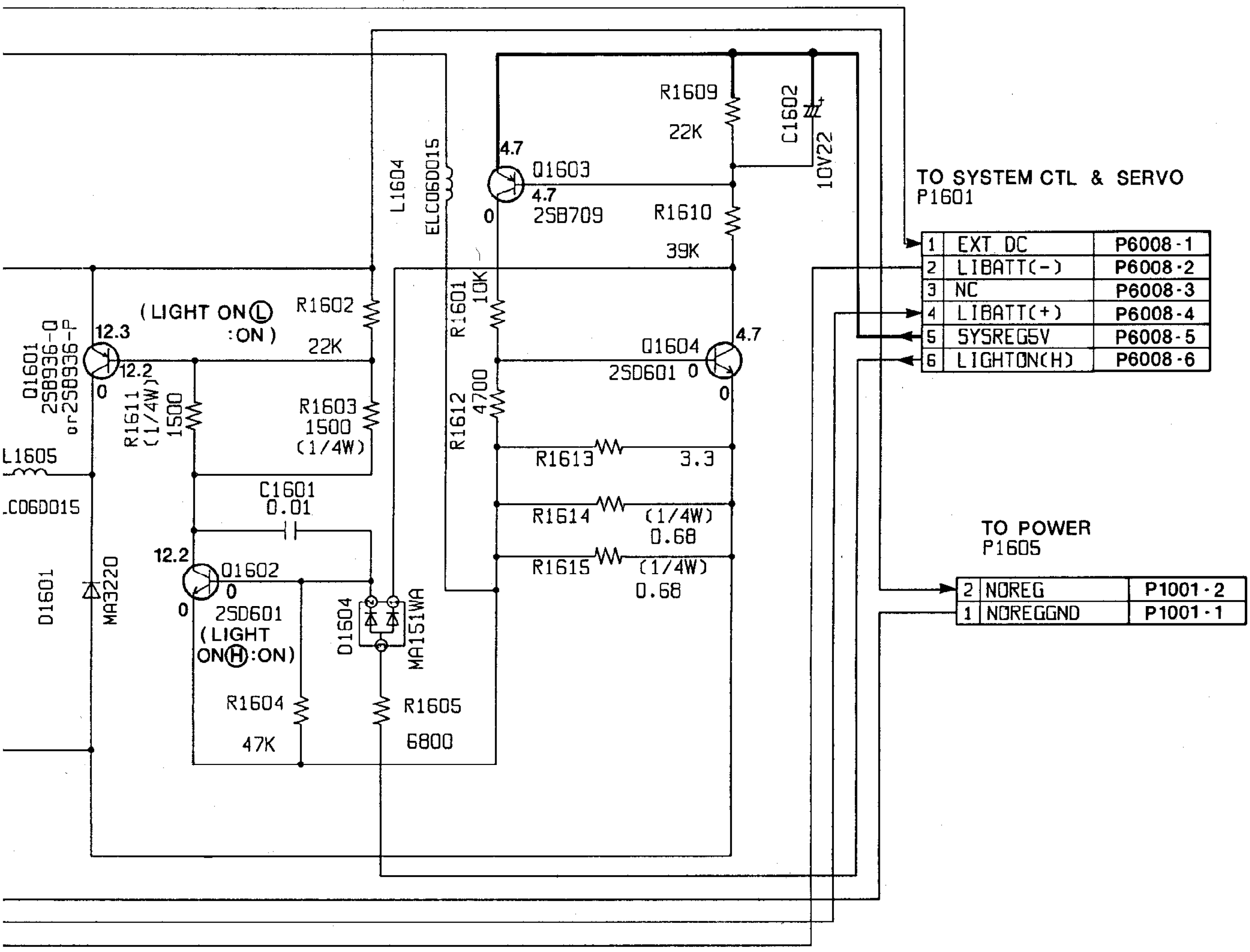

EDIT
D1501
MA165
D1502
MA165
D1503
MA165
D1504
MA165
TO JACK B
P1501
1 NOREG SW P1602 - 1
2 NOREG P1602 - 2
3 NOREG GND P1602 - 3
4 BATT(+) P1602 - 4
DC JACK
AUDIO OUT(L)
RF DC OUT
VIDEO OUT
ON JACK
EAR JACK
PHONE
3
4

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

3-24. AV JACK (B) SCHEMATIC DIAGRAM


C
B
A
1
2
3
P1603
DC LIGHT
DC
LIGHT
LIGHT 12V
LIGHT GND
TO JACK A
P1602
P1501-1
P1501-2
P1501-3
P1501-4
NOREG SW
NOREG
NOREG GND
BATT(+)
L1601
VLP0113
D1603
31D004FC7
R1606
VSF0059
(LIG
Q1601
2SB936-Q
or2SB936-P
12.3
12.2
0
R1611
(1/4W)
L1605
ELC06D015
12.
D1601
MA3220
L1602
VLP0113
TO BATTERY
P1604
BATT(+)
BATT(-)
TO Li BATTERY
LIBATT+
LIBATT-
Z1601
VSB0166
R1607
180

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS

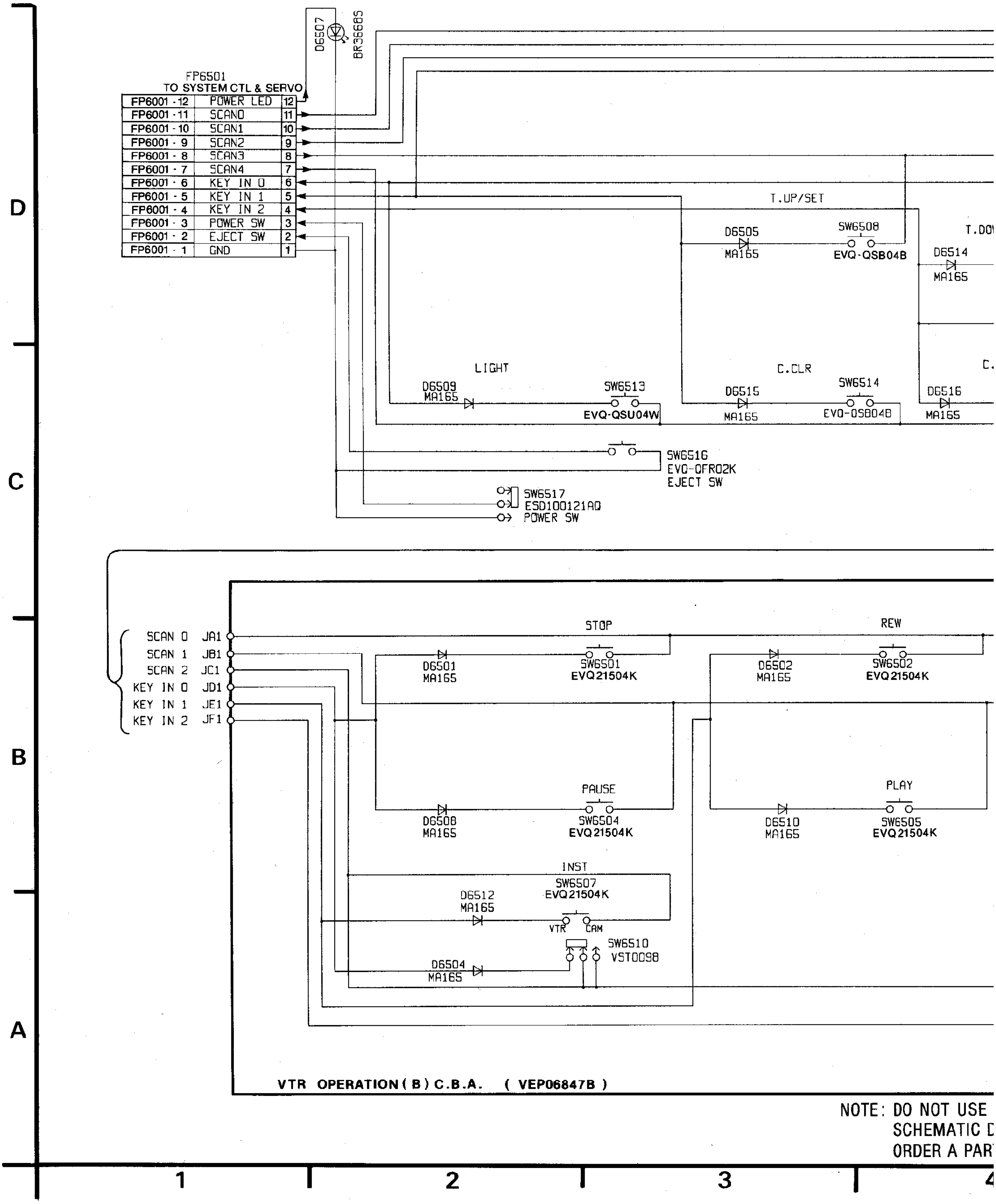

R1609
22K
C1602
10V22
4.7
Q1603
4.7
0
2SB709
R1610
39K
L1604
ELC06D015
TO SYSTEM CTL & SERVO
P1601
1 EXT DC P6008-1
2 LIBATT(-) P6008-2
3 NC P6008-3
4 LIBATT(+) P6008-4
5 SYSREG5V P6008-5
6 LIGHTON(H) P6008-6
Q1601
2SB936-Q
or2SB936-P
12.3
12.2
0
(LIGHT ON L :ON)
R1602
22K
R1611
(1/4W)
1500
R1603
1500
(1/4W)
R1601
10K
R1612
4700
Q1604
2SD601 0
4.7
0
R1613
3.3
R1614
(1/4W)
0.68
R1615
(1/4W)
0.68
L1605
.C06D015
C1601
0.01
12.2
Q1602
0
0
2SD601
(LIGHT
ON H :ON)
D1601
MA3220
D1604
MA151WA
R1604
47K
R1605
6800
TO POWER
P1605
2 NOREG P1001-2
1 NOREGGND P1001-1

/OLTAGE ON THIS DIAGRAM IS STOP MODE.

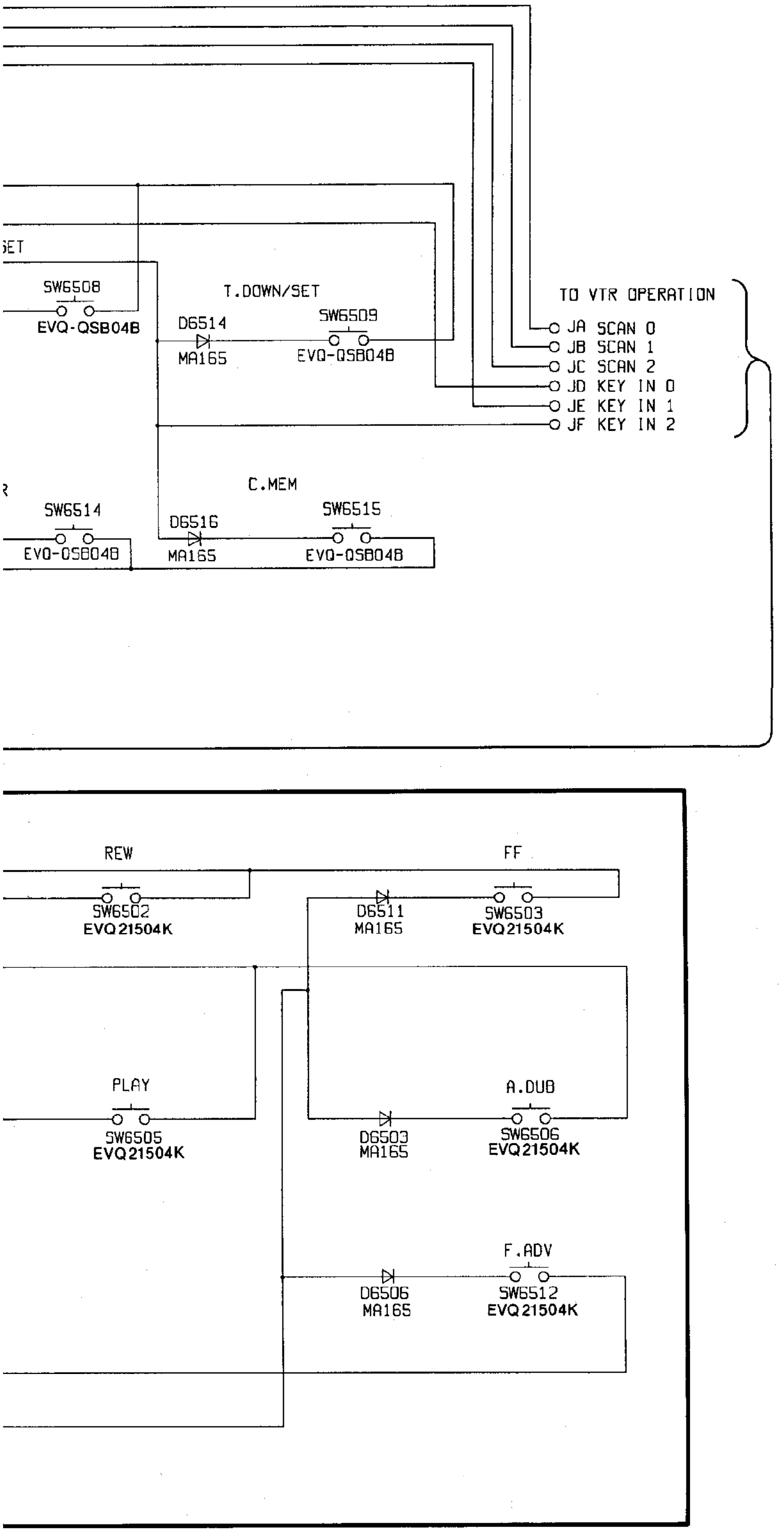
NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

3 4 5

3-26. VTR OPERATION SCHEMATIC DIAGRAM


D6507
BR3668S
FP6501
TO SYSTEM CTL & SERVO
FP6001 - 12 POWER LED 12
FP6001 - 11 SCAN0 11
FP6001 - 10 SCAN1 10
FP6001 - 9 SCAN2 9
FP6001 - 8 SCAN3 8
FP6001 - 7 SCAN4 7
FP6001 - 6 KEY IN 0 6
FP6001 - 5 KEY IN 1 5
FP6001 - 4 KEY IN 2 4
FP6001 - 3 POWER SW 3
FP6001 - 2 EJECT SW 2
FP6001 - 1 GND 1
T.UP/SET
D6505
MA165
SW6508
EVQ-QSB04B
T.DO
D6514
MA165
LIGHT
D6509
MA165
SW6513
EVQ-QSU04W
C.CLR
D6515
MA165
SW6514
EVQ-QSB04B
C.
D6516
MA165
SW6516
EVQ-QFR02K
EJECT SW
SW6517
ESD100121AQ
POWER SW
SCAN 0 JA1
SCAN 1 JB1
SCAN 2 JC1
KEY IN 0 JD1
KEY IN 1 JE1
KEY IN 2 JF1
STOP
D6501
MA165
SW6501
EVQ21504K
REW
D6502
MA165
SW6502
EVQ21504K
PAUSE
D6508
MA165
SW6504
EVQ21504K
PLAY
D6510
MA165
SW6505
EVQ21504K
INST
SW6507
EVQ21504K
D6512
MA165
VTR
CAM
SW6510
VST0098
D6504
MA165
VTR OPERATION (B) C.B.A. (VEP06847B)
D
C
B
A
1
2
3
4

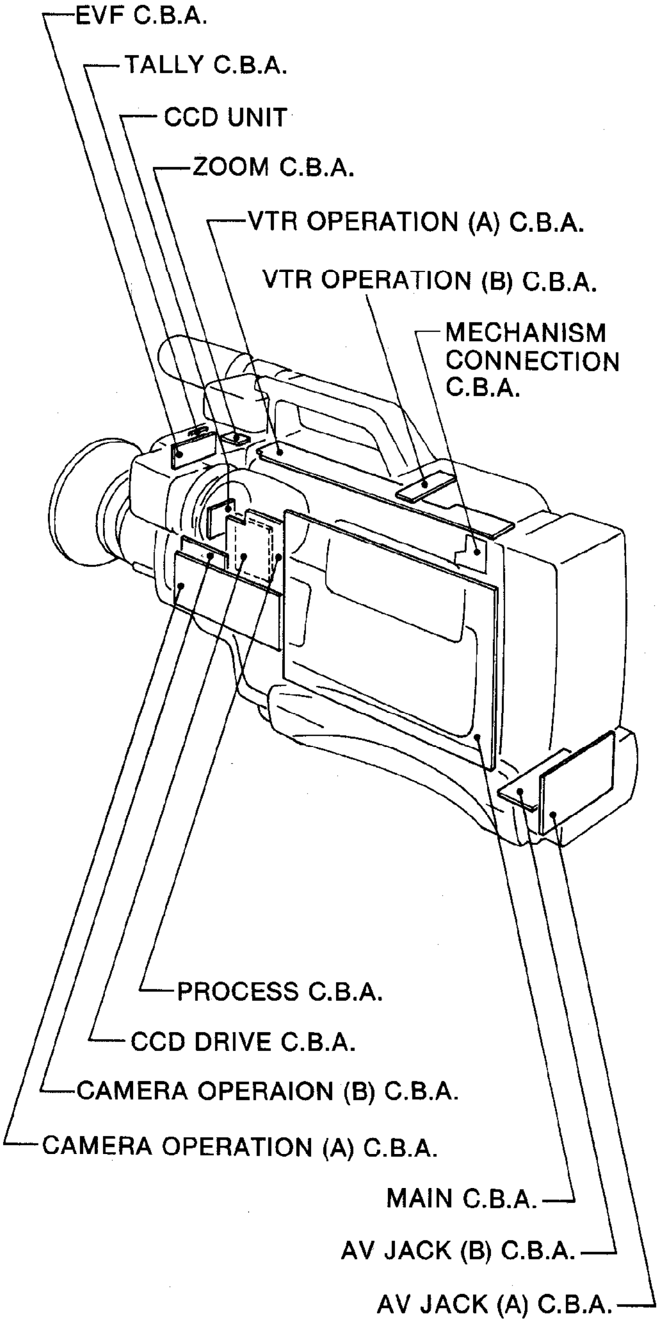
NOTE: DO NOT USE
SCHEMATIC D
ORDER A PAR


SET
SW6508
EVQ-QSB04B
T.DOWN/SET
D6514
MA165
SW6509
EVQ-QSB04B
TO VTR OPERATION
JA SCAN 0
JB SCAN 1
JC SCAN 2
JD KEY IN 0
JE KEY IN 1
JF KEY IN 2
C.MEM
SW6514
EVQ-QSB04B
D6516
MA165
SW6515
EVQ-QSB04B
REW
SW6502
EVQ21504K
FF
D6511
MA165
SW6503
EVQ21504K
PLAY
SW6505
EVQ21504K
A.DUB
D6503
MA165
SW6506
EVQ21504K
F.ADV
D6506
MA165
SW6512
EVQ21504K

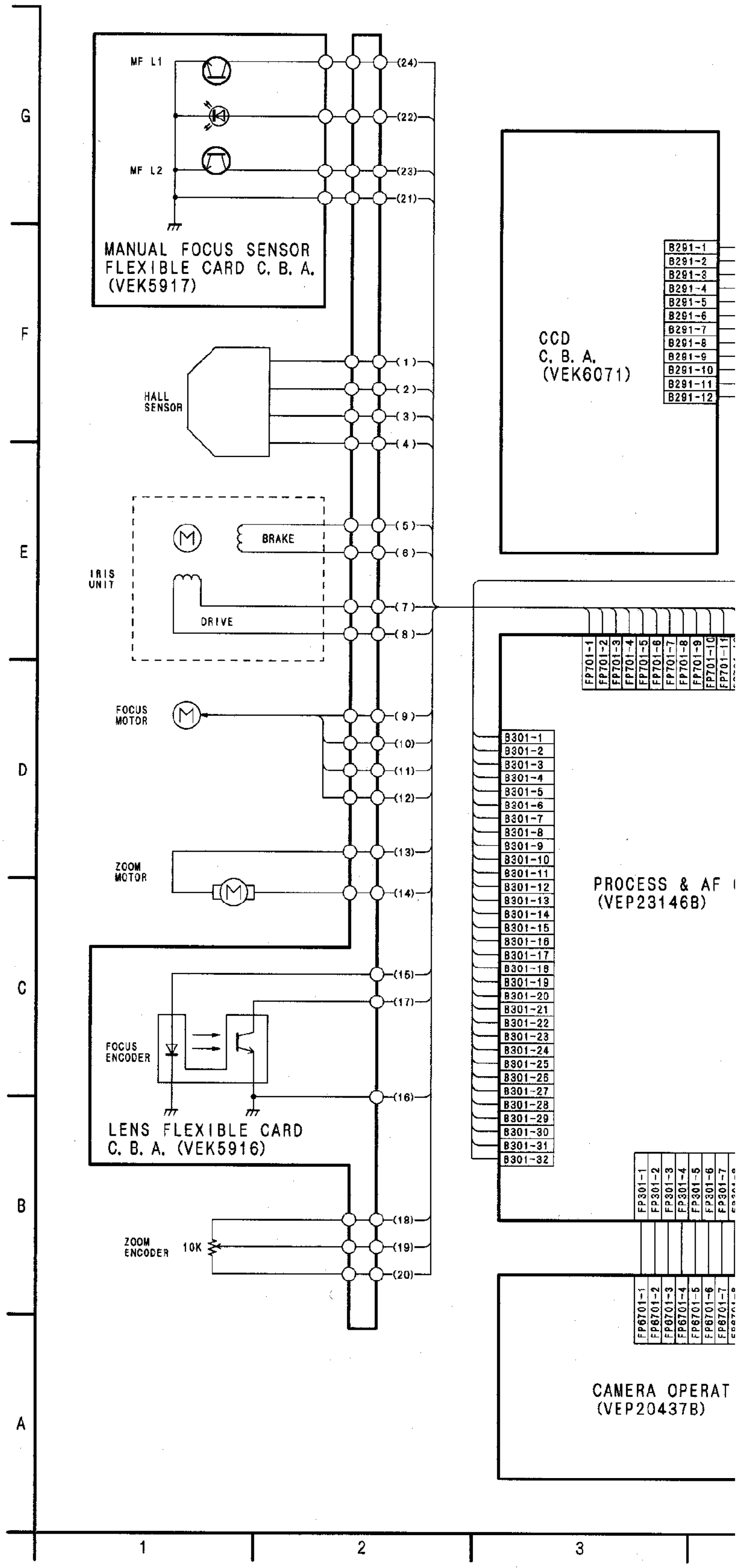
NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

4 5

3-28. CIRCUIT BOARD LAYOUT

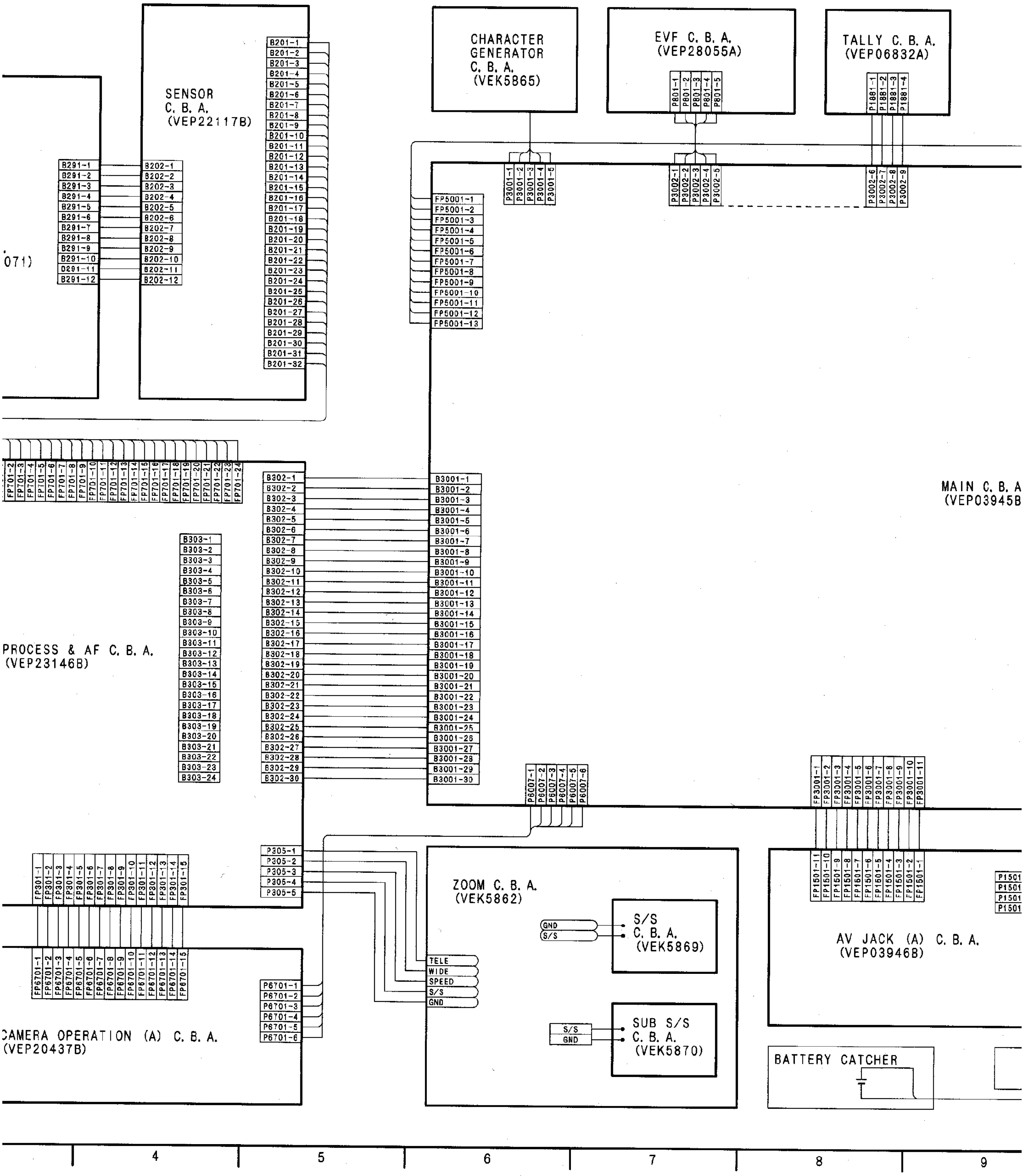

EVF C.B.A.
TALLY C.B.A.
CCD UNIT
ZOOM C.B.A.
VTR OPERATION (A) C.B.A.
VTR OPERATION (B) C.B.A.
MECHANISM CONNECTION C.B.A.
PROCESS C.B.A.
CCD DRIVE C.B.A.
CAMERA OPERAION (B) C.B.A.
CAMERA OPERATION (A) C.B.A.
MAIN C.B.A.
AV JACK (B) C.B.A.
AV JACK (A) C.B.A.

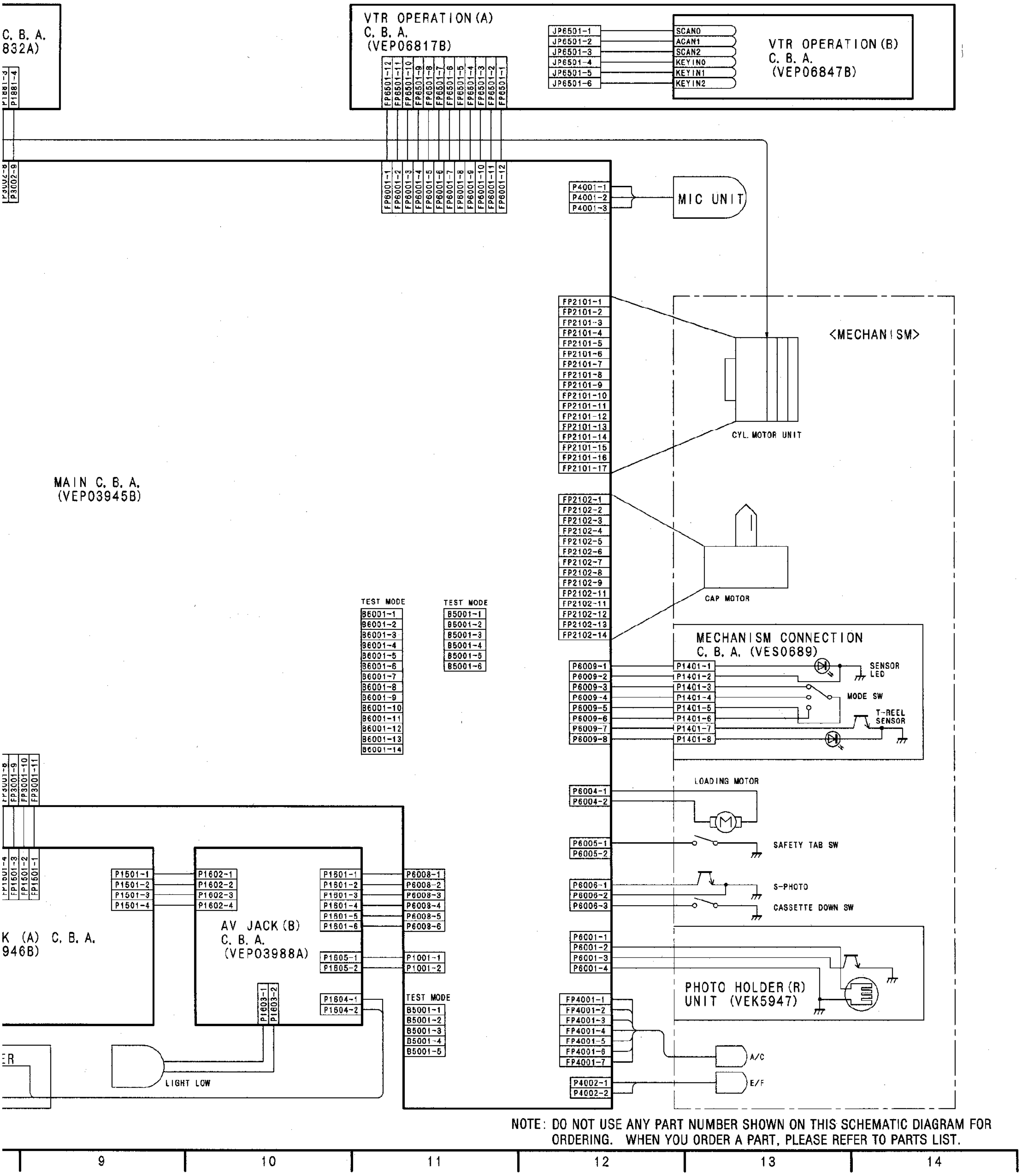
3-29. INTERCONNECTION SCHEMATIC D



G
F
E
D
C
B
A
1
2
3
MF L1
MF L2
MANUAL FOCUS SENSOR FLEXIBLE CARD C. B. A. (VEK5917)
HALL SENSOR
IRIS UNIT
BRAKE
DRIVE
FOCUS MOTOR
ZOOM MOTOR
FOCUS ENCODER
LENS FLEXIBLE CARD C. B. A. (VEK5916)
ZOOM ENCODER
10K
(24)
(22)
(23)
(21)
(1)
(2)
(3)
(4)
(5)
(6)
(7)
(8)
(9)
(10)
(11)
(12)
(13)
(14)
(15)
(17)
(16)
(18)
(19)
(20)
CCD C. B. A. (VEK6071)
B291-1
B291-2
B291-3
B291-4
B291-5
B291-6
B291-7
B291-8
B291-9
B291-10
B291-11
B291-12
FP701-1
FP701-2
FP701-3
FP701-4
FP701-5
FP701-6
FP701-7
FP701-8
FP701-9
FP701-10
FP701-11
B301-1
B301-2
B301-3
B301-4
B301-5
B301-6
B301-7
B301-8
B301-9
B301-10
B301-11
B301-12
B301-13
B301-14
B301-15
B301-16
B301-17
B301-18
B301-19
B301-20
B301-21
B301-22
B301-23
B301-24
B301-25
B301-26
B301-27
B301-28
B301-29
B301-30
B301-31
B301-32
PROCESS & AF
(VEP23146B)
FP301-1
FP301-2
FP301-3
FP301-4
FP301-5
FP301-6
FP301-7
FP6701-1
FP6701-2
FP6701-3
FP6701-4
FP6701-5
FP6701-6
FP6701-7
CAMERA OPERAT
(VEP20437B)

MATIC DIAGRAM


SENSOR
C. B. A.
(VEP22117B)
071)
CHARACTER
GENERATOR
C. B. A.
(VEK5865)
EVF C. B. A.
(VEP28055A)
TALLY C. B. A.
(VEP06832A)
MAIN C. B. A
(VEP03945B
PROCESS & AF C. B. A.
(VEP23146B)
ZOOM C. B. A.
(VEK5862)
S/S
C. B. A.
(VEK5869)
SUB S/S
C. B. A.
(VEK5870)
GND
S/S
TELE
WIDE
SPEED
AV JACK (A) C. B. A.
(VEP03946B)
BATTERY CATCHER
CAMERA OPERATION (A) C. B. A.
(VEP20437B)
4
5
6
7
8
9
]

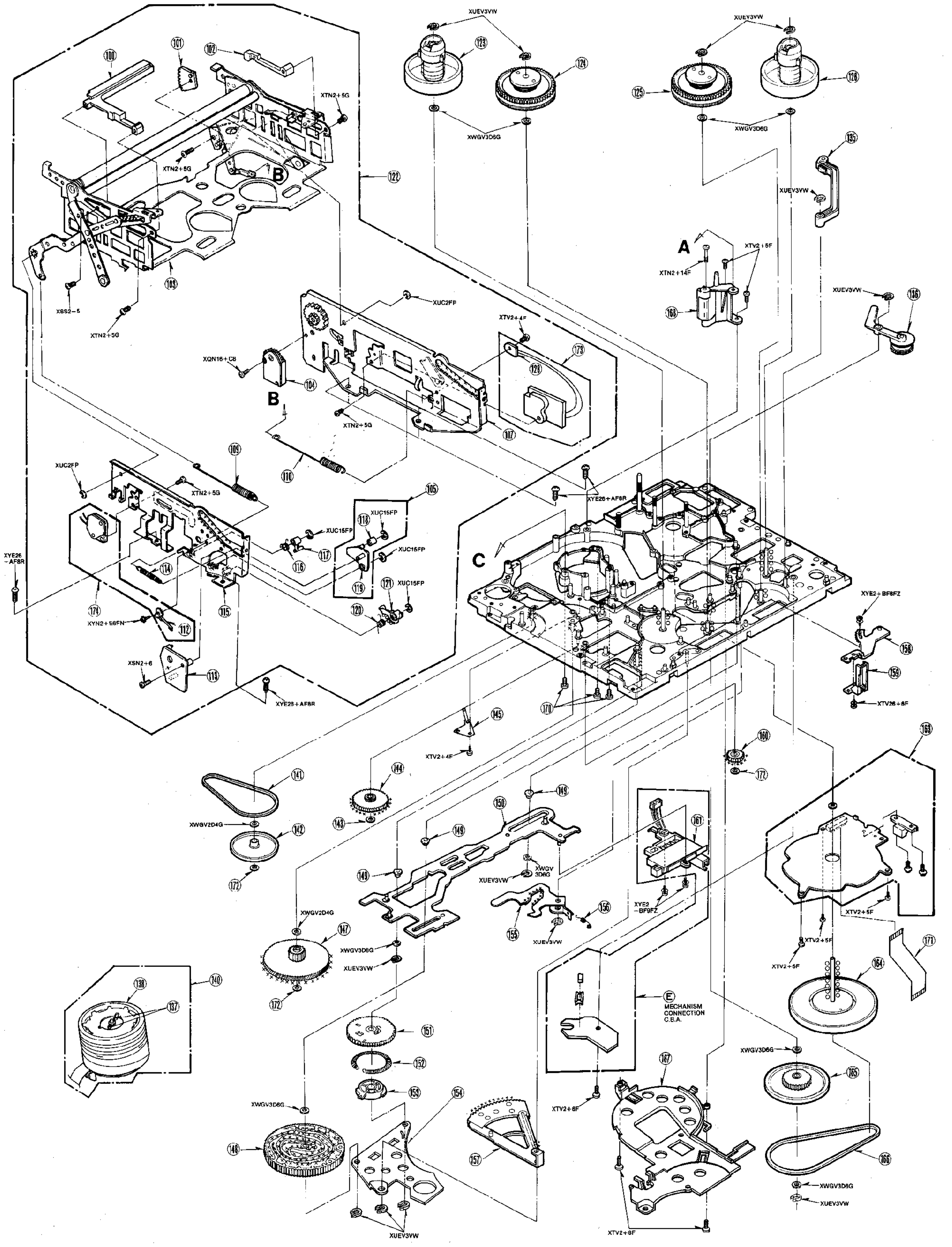

C. B. A.
832A)
P1881-3
P1881-4
P3002-8
P3002-9
VTR OPERATION (A)
C. B. A.
(VEP06817B)
FP6501-12
FP6501-11
FP6501-10
FP6501-9
FP6501-8
FP6501-7
FP6501-6
FP6501-5
FP6501-4
FP6501-3
FP6501-2
FP6501-1
JP6501-1
JP6501-2
JP6501-3
JP6501-4
JP6501-5
JP6501-6
SCAN0
ACAN1
SCAN2
KEYIN0
KEYIN1
KEYIN2
VTR OPERATION (B)
C. B. A.
(VEP06847B)
FP6001-1
FP6001-2
FP6001-3
FP6001-4
FP6001-5
FP6001-6
FP6001-7
FP6001-8
FP6001-9
FP6001-10
FP6001-11
FP6001-12
P4001-1
P4001-2
P4001-3
MIC UNIT
FP2101-1
FP2101-2
FP2101-3
FP2101-4
FP2101-5
FP2101-6
FP2101-7
FP2101-8
FP2101-9
FP2101-10
FP2101-11
FP2101-12
FP2101-13
FP2101-14
FP2101-15
FP2101-16
FP2101-17
<MECHANISM>
CYL. MOTOR UNIT
MAIN C. B. A.
(VEP03945B)
FP2102-1
FP2102-2
FP2102-3
FP2102-4
FP2102-5
FP2102-6
FP2102-7
FP2102-8
FP2102-9
FP2102-11
FP2102-11
FP2102-12
FP2102-13
FP2102-14
CAP MOTOR
TEST MODE
B6001-1
B6001-2
B6001-3
B6001-4
B6001-5
B6001-6
B6001-7
B6001-8
B6001-9
B6001-10
B6001-11
B6001-12
B6001-13
B6001-14
TEST MODE
B5001-1
B5001-2
B5001-3
B5001-4
B5001-5
B5001-6
MECHANISM CONNECTION
C. B. A. (VES0689)
P6009-1
P6009-2
P6009-3
P6009-4
P6009-5
P6009-6
P6009-7
P6009-8
P1401-1
P1401-2
P1401-3
P1401-4
P1401-5
P1401-6
P1401-7
P1401-8
SENSOR LED
MODE SW
T-REEL SENSOR
FP3001-8
FP3001-9
FP3001-10
FP3001-11
LOADING MOTOR
P6004-1
P6004-2
M
P6005-1
P6005-2
SAFETY TAB SW
FP1501-4
FP1501-3
FP1501-2
FP1501-1
P1501-1
P1501-2
P1501-3
P1501-4
P1602-1
P1602-2
P1602-3
P1602-4
P1601-1
P1601-2
P1601-3
P1601-4
P1601-5
P1601-6
P6008-1
P6008-2
P6008-3
P6008-4
P6008-5
P6008-6
P6006-1
P6006-2
P6006-3
S-PHOTO
CASSETTE DOWN SW
K (A) C. B. A.
946B)
AV JACK (B)
C. B. A.
(VEP03988A)
P1605-1
P1605-2
P1001-1
P1001-2
P6001-1
P6001-2
P6001-3
P6001-4
PHOTO HOLDER (R)
UNIT (VEK5947)
P1603-1
P1603-2
P1604-1
P1604-2
TEST MODE
B5001-1
B5001-2
B5001-3
B5001-4
B5001-5
FP4001-1
FP4001-2
FP4001-3
FP4001-4
FP4001-5
FP4001-6
FP4001-7
A/C
ER
LIGHT LOW
P4002-1
P4002-2
E/F
9
10
11
12
13
14

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

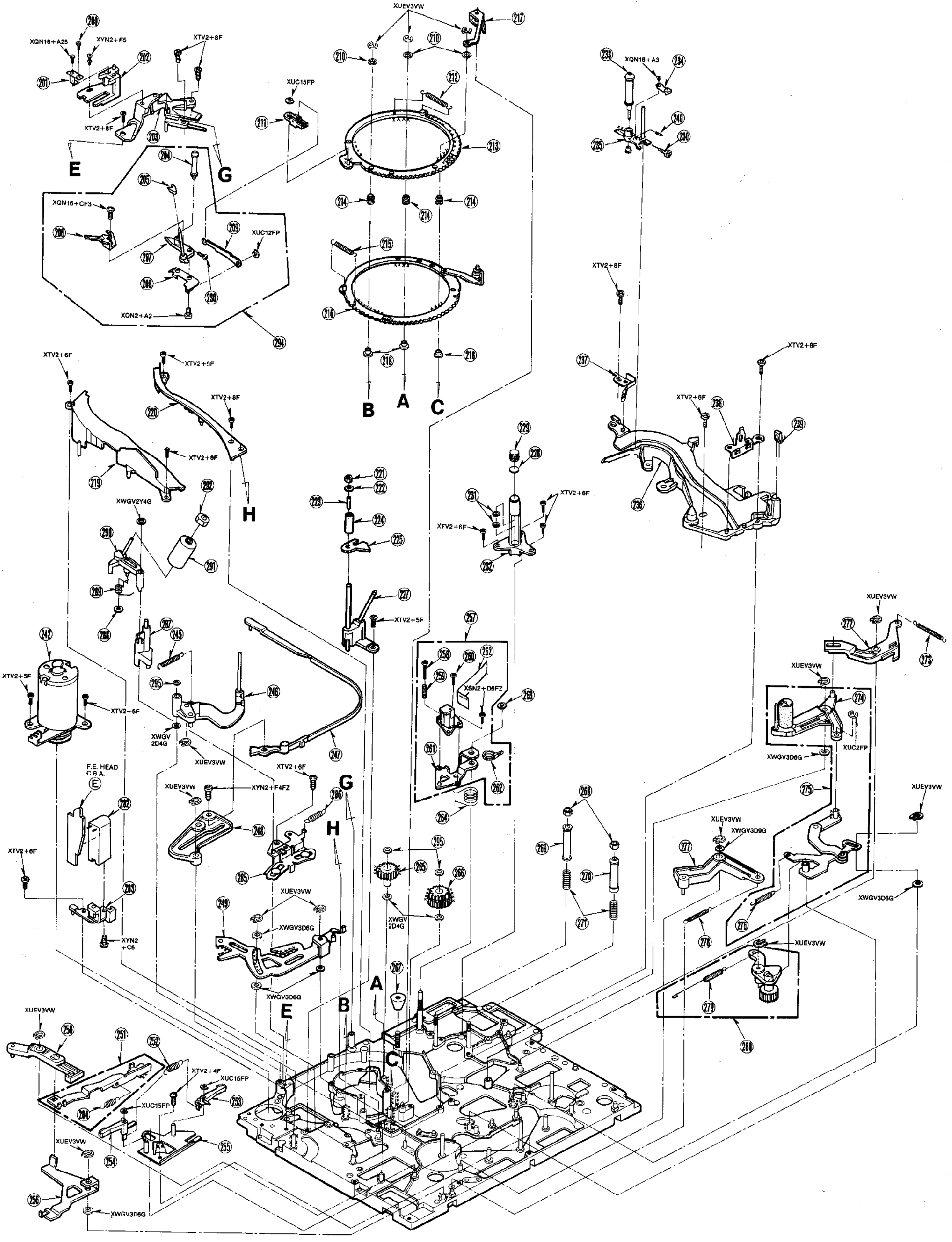
SECTION 4
EXPLODED VIEWS & PARTS LISTS

4-1. EXPLODED VIEWS

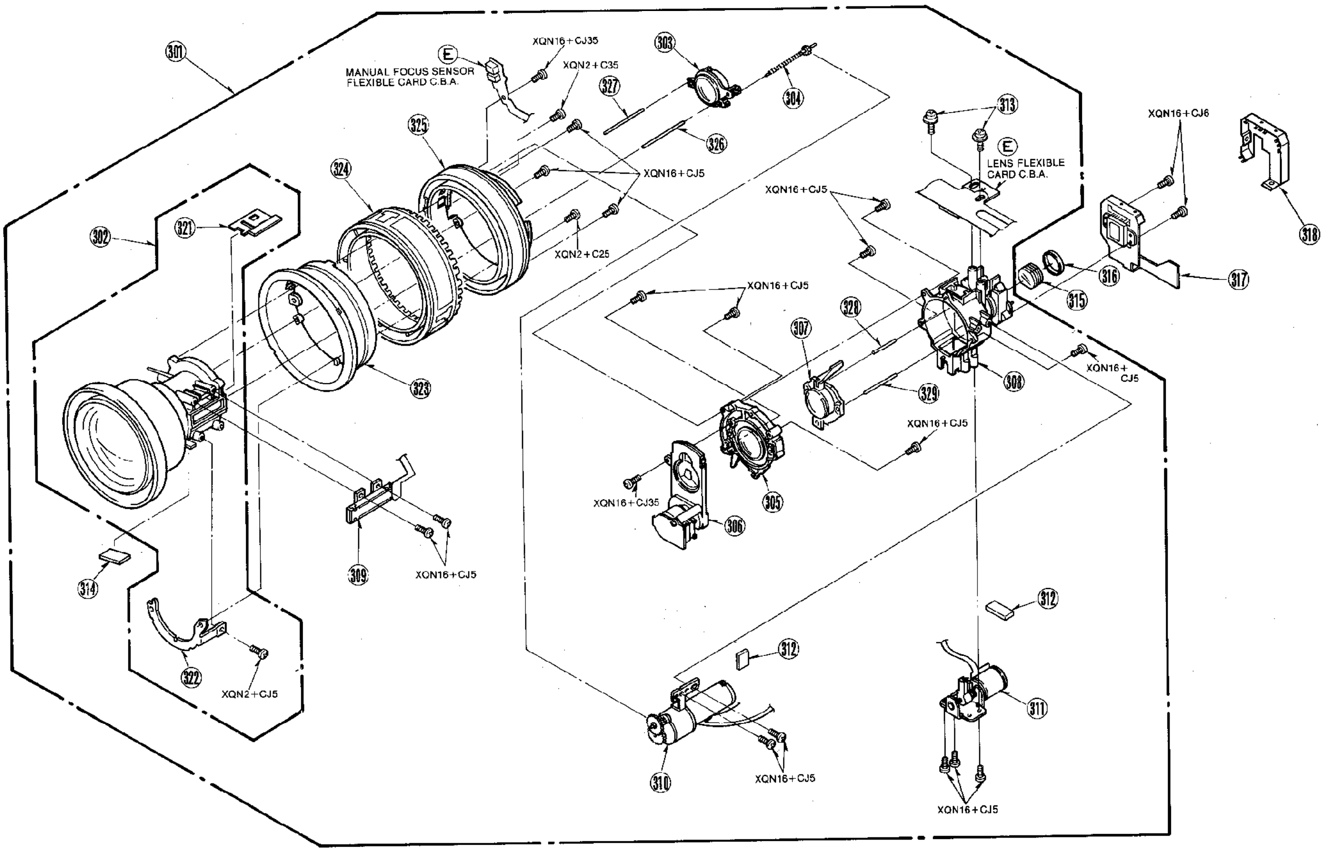
❶ VTR MECHANISM SECTION (1)


100
101
102
XTN2+5G
XTN2+5G
B
103
XSS2-5
XTN2+5G
122
XUEV3VW
123
124
XWGV3D6G
XUEV3VW
125
126
XWGV3D6G
135
XUEV3VW
A
XTN2+14F
XTV2+5F
168
XUEV3VW
136
XUC2FP
XTV2+4F
173
128
XQN16+C8
104
B
XTN2+5G
107
109
110
XUC2FP
XTN2+5G
105
XUC15FP
118
XUC15FP
XUC15FP
117
116
119
121
XUC15FP
120
XYE26
-AF8R
114
174
115
XYN2+E6FN
112
XSN2+6
113
XYE26+AF8R
XYE26+AF8R
C
XYE2+BF8FZ
158
159
XTV26+8F
170
145
XTV2+4F
160
172
163
141
XWGV2D4G
142
172
144
143
149
150
149
149
XUEV3VW
XWGV
3D6G
161
XYE2
-BF9FZ
156
155
XUEV3VW
XTV2+5F
XTV2+5F
XTV2+5F
171
164
XWGV2D4G
147
XWGV3D6G
XUEV3VW
172
140
138
137
E
MECHANISM
CONNECTION
C.B.A.
151
152
153
154
XWGV3D6G
148
157
XTV2+6F
167
XWGV3D6G
165
166
XWGV3D6G
XUEV3VW
XUEV3VW
XTV2+8F

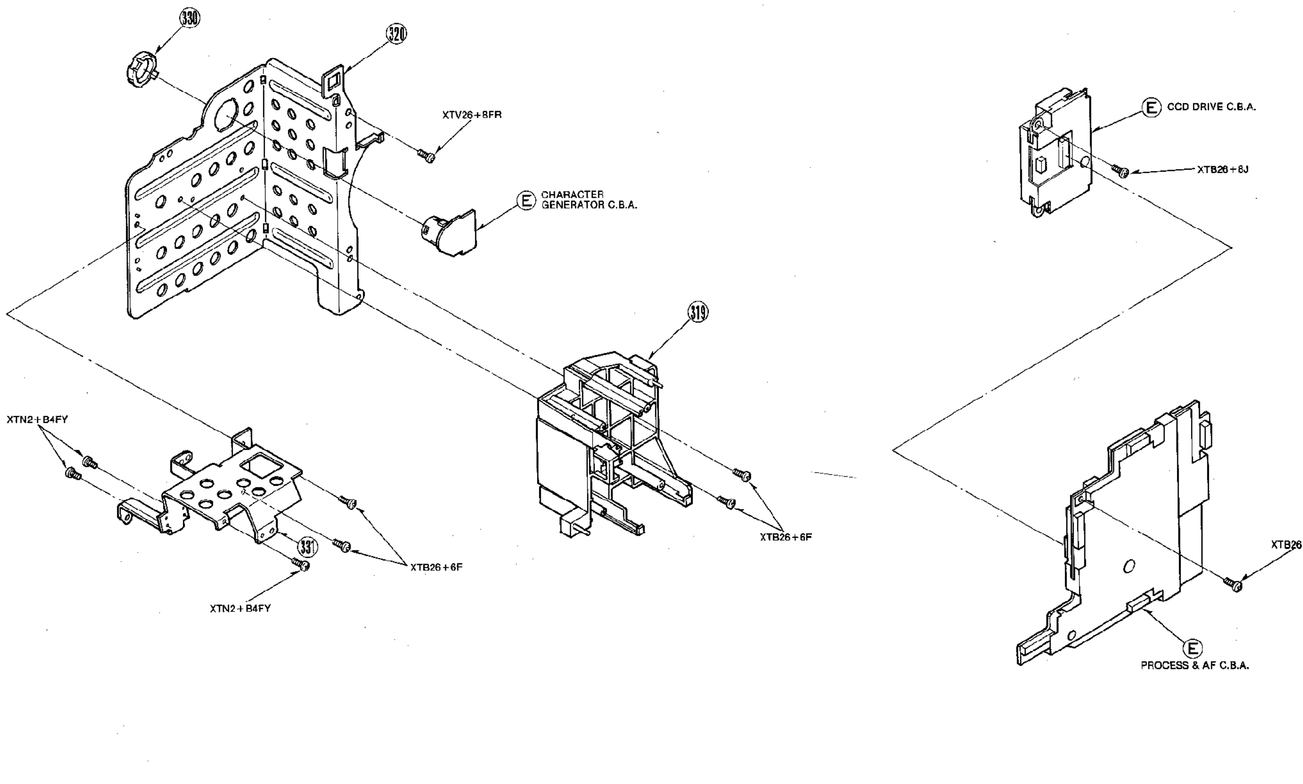
❷ VTR MECHANISM SECTION (2)


XUEV3VW
217
209
210
210
210
XQN16+A25
XYN2+F5
XTV2+8F
202
201
XUC15FP
212
233
XQN16+A3
234
XTV2+6F
203
211
213
240
230
235
E
G
204
205
XQN16+CF3
214
214
214
200
209
XUC12FP
215
207
208
280
216
XQN2+A2
294
XTV2+8F
218
218
B
A
C
XTV2+6F
XTV2+5F
220
XTV2+8F
237
XTV2+8F
238
239
229
228
219
XTV2+6F
221
222
223
224
225
231
XTV2+6F
XTV2+8F
232
236
H
XWGV2Y4G
292
290
291
289
288
227
XTV2-5F
242
287
245
257
258
260
262
259
XSN2+D6FZ
263
XTV2+5F
XTV2-5F
295
246
XWGV 2D4G
XUEV3VW
247
261
262
264
F.E. HEAD C.B.A.
E
282
XUEV3VW
XYN2+F4FZ
XTV2+6F
286
G
H
248
285
XTV2+6F
283
XYN2 +C5
XUEV3VW
249
XWGV3D6G
XWGV3D6G
295
265
266
XWGV 2D4G
267
A
E
B
C
268
269
270
271
XUEV3VW
272
273
XUEV3VW
274
XUC2FP
XWGV3D6G
275
XUEV3VW
XUEV3VW
XWGV3D9G
277
276
XWGV3D6G
278
XUEV3VW
279
280
XUEV3VW
254
251
252
XTV2+4F
XUC15FP
253
284
XUC15FP
254
255
XUEV3VW
256
XWGV3D6G

❸ CAMERA LENS SECTION

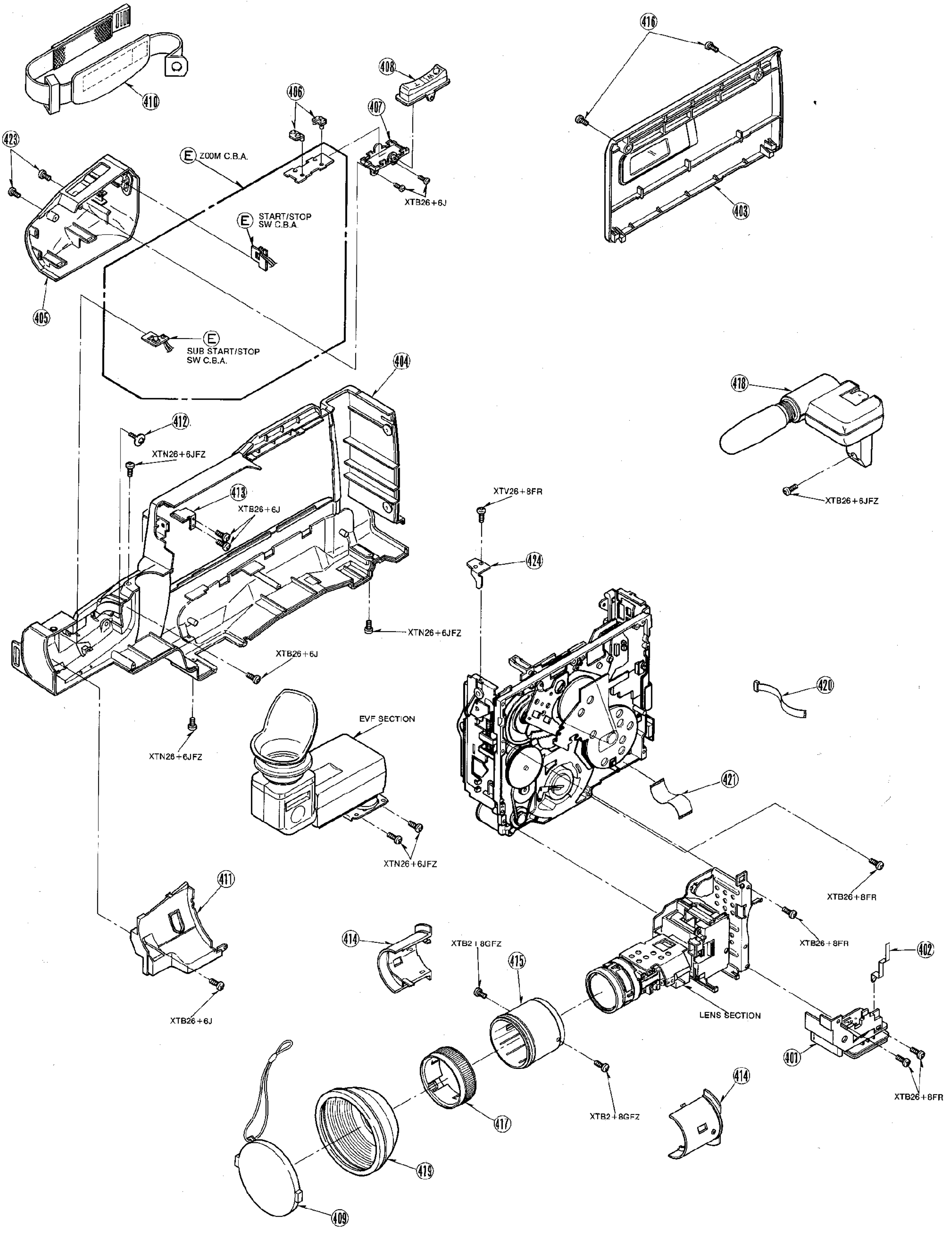


301
302
Ⓔ
MANUAL FOCUS SENSOR
FLEXIBLE CARD C.B.A.
XQN16+CJ35
XQN2+C35
303
327
304
325
326
324
XQN16+CJ5
XQN2+C25
321
313
Ⓔ
LENS FLEXIBLE
CARD C.B.A.
XQN16+CJ6
318
XQN16+CJ5
316
317
315
XQN16+CJ5
328
307
XQN16+CJ5
308
329
323
XQN16+CJ5
XQN16+CJ35
305
306
309
XQN16+CJ5
314
312
312
322
XQN2+CJ5
311
310
XQN16+CJ5
XQN16+CJ5



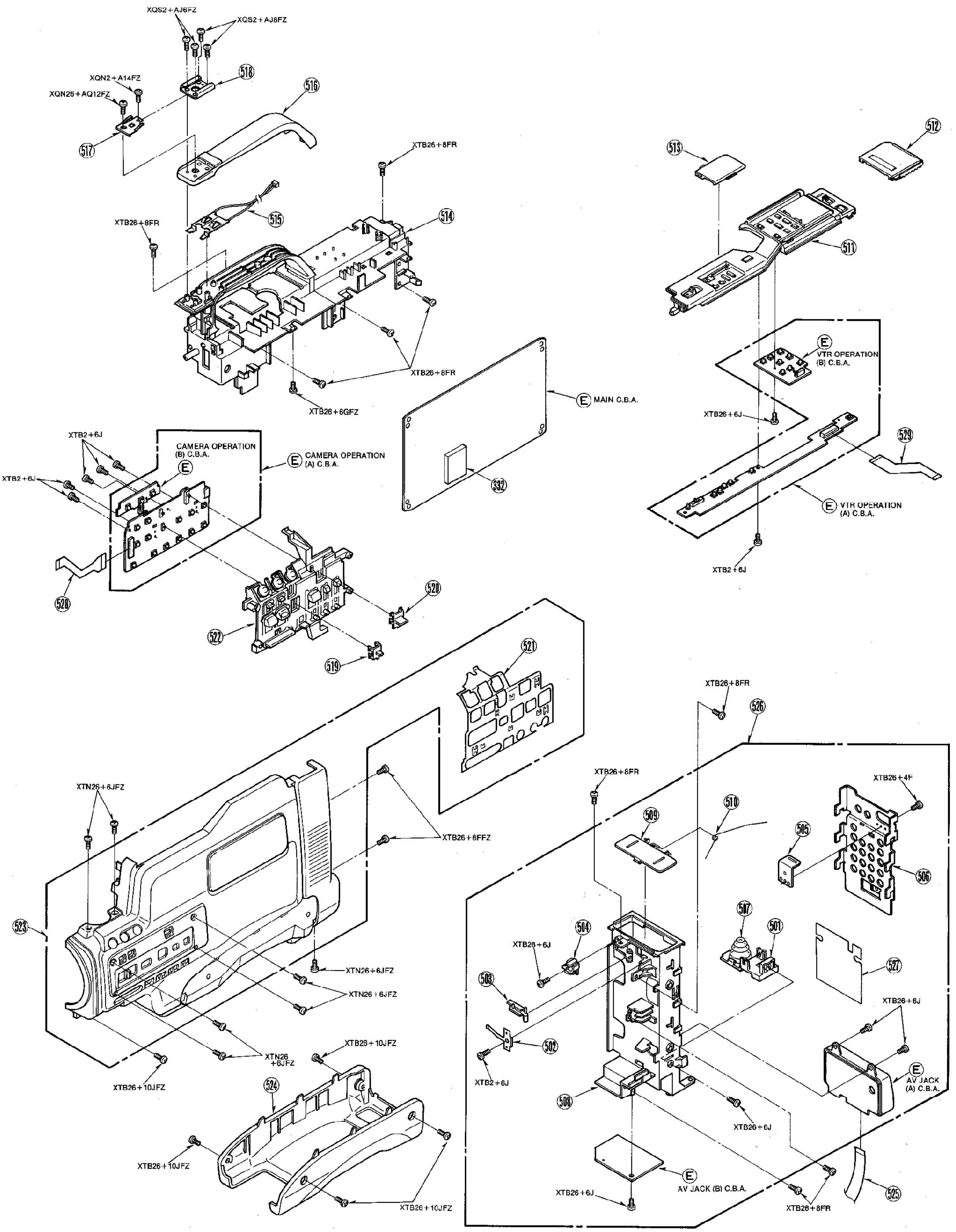
330
320
XTV26+8FR
Ⓔ CCD DRIVE C.B.A.
XTB26+8J
Ⓔ CHARACTER
GENERATOR C.B.A.
319
XTN2+B4FY
XTB26+6F
331
XTB26+6F
XTN2+B4FY
XTB26+8J
Ⓔ
PROCESS & AF C.B.A.

❹ FRAME & CASING PARTS SECTION (1)

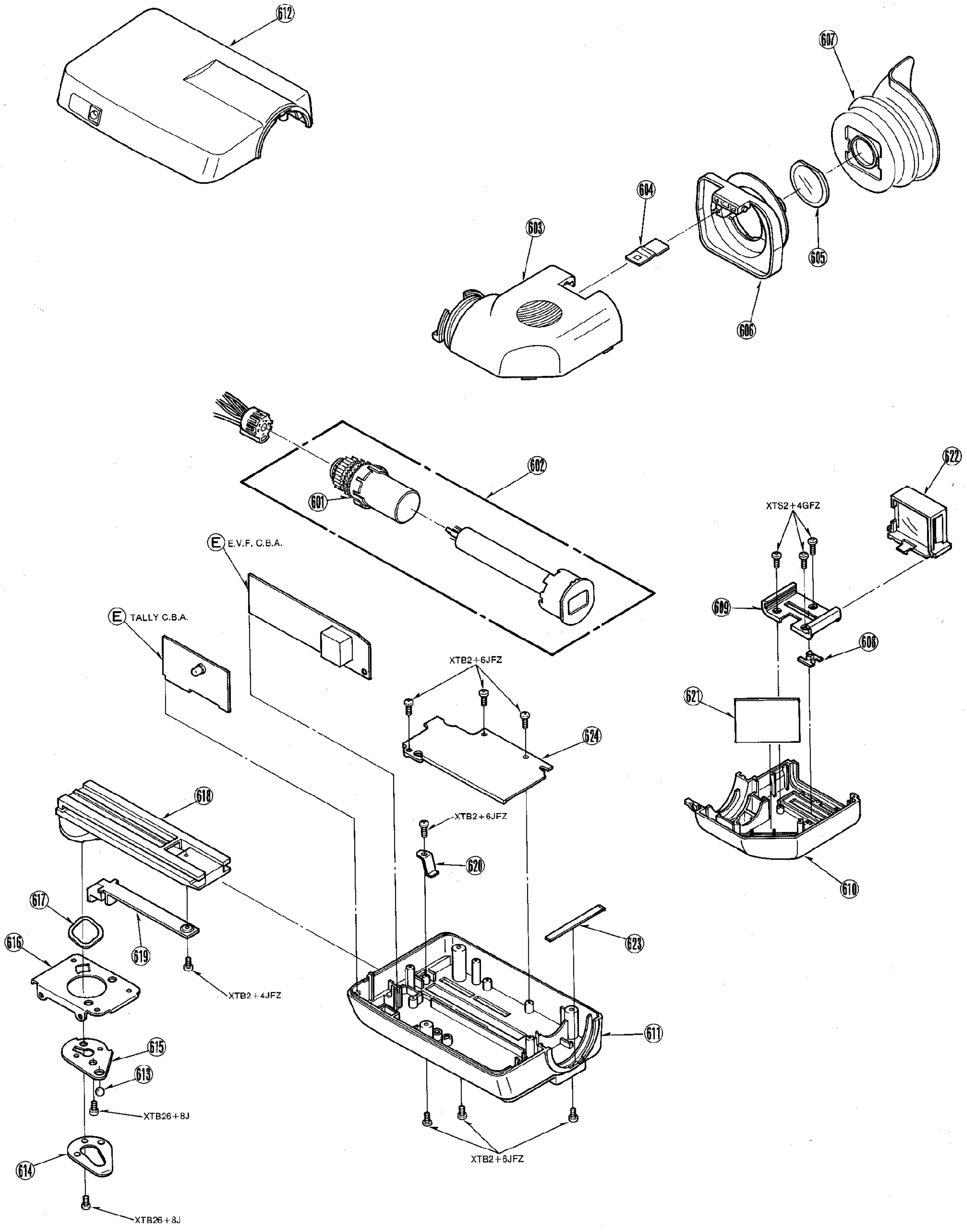


410
423
406
408
407
416
E ZOOM C.B.A.
E START/STOP SW C.B.A
XTB26+6J
403
405
E SUB START/STOP SW C.B.A.
404
418
412
XTN26+6JFZ
413
XTB26+6J
XTV26+8FR
XTB26+6JFZ
424
XTN26+6JFZ
XTB26+6J
420
EVF SECTION
XTN26+6JFZ
421
XTN26+6JFZ
XTB26+8FR
411
414
XTB2+8GFZ
415
XTB26+8FR
402
LENS SECTION
401
XTB26+6J
XTB26+8FR
417
XTB2+8GFZ
414
419
409

❺ FRAME & CASING PARTS SECTION (2)

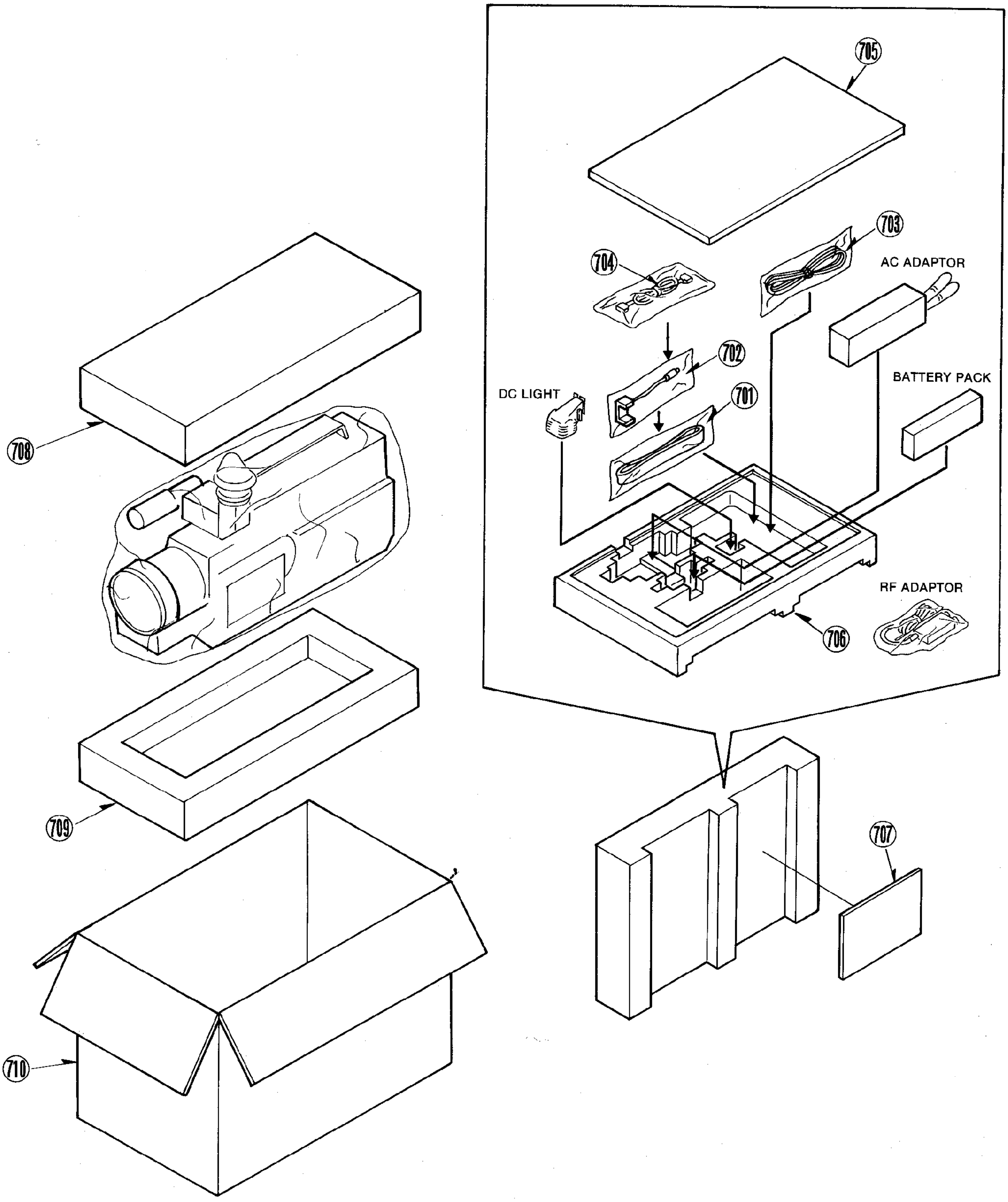

XQS2+AJ6FZ
XQS2+AJ8FZ
(518)
XQN2+A14FZ
XQN26+AQ12FZ
(516)
(517)
XTB26+8FR
(515)
XTB26+8FR
(514)
XTB26+8FR
XTB26+6GFZ
(513)
(512)
(511)
E
VTR OPERATION (B) C.B.A.
E MAIN C.B.A.
XTB26+6J
(529)
E VTR OPERATION (A) C.B.A.
XTB2+6J
(332)
XTB2+6J
CAMERA OPERATION (B) C.B.A.
E
E CAMERA OPERATION (A) C.B.A.
XTB2+6J
(528)
(520)
(522)
(519)
(521)
XTB26+8FR
(526)
XTN26+6JFZ
XTB26+8FR
XTB26+4F
XTB26+6FFZ
(509)
(510)
(505)
(506)
(523)
XTB26+6J
(504)
(507)
(501)
XTN26+6JFZ
(503)
(527)
XTN26+6JFZ
XTB26+6J
(502)
XTN26 +6JFZ
XTB26+10JFZ
XTB2+6J
E
AV JACK (A) C.B.A.
XTB26+10JFZ
(508)
(524)
XTB26+6J
XTB26+10JFZ
E
AV JACK (B) C.B.A.
XTB26+6J
XTB26+8FR
(525)
XTB26+10JFZ

❻ EVF SECTION

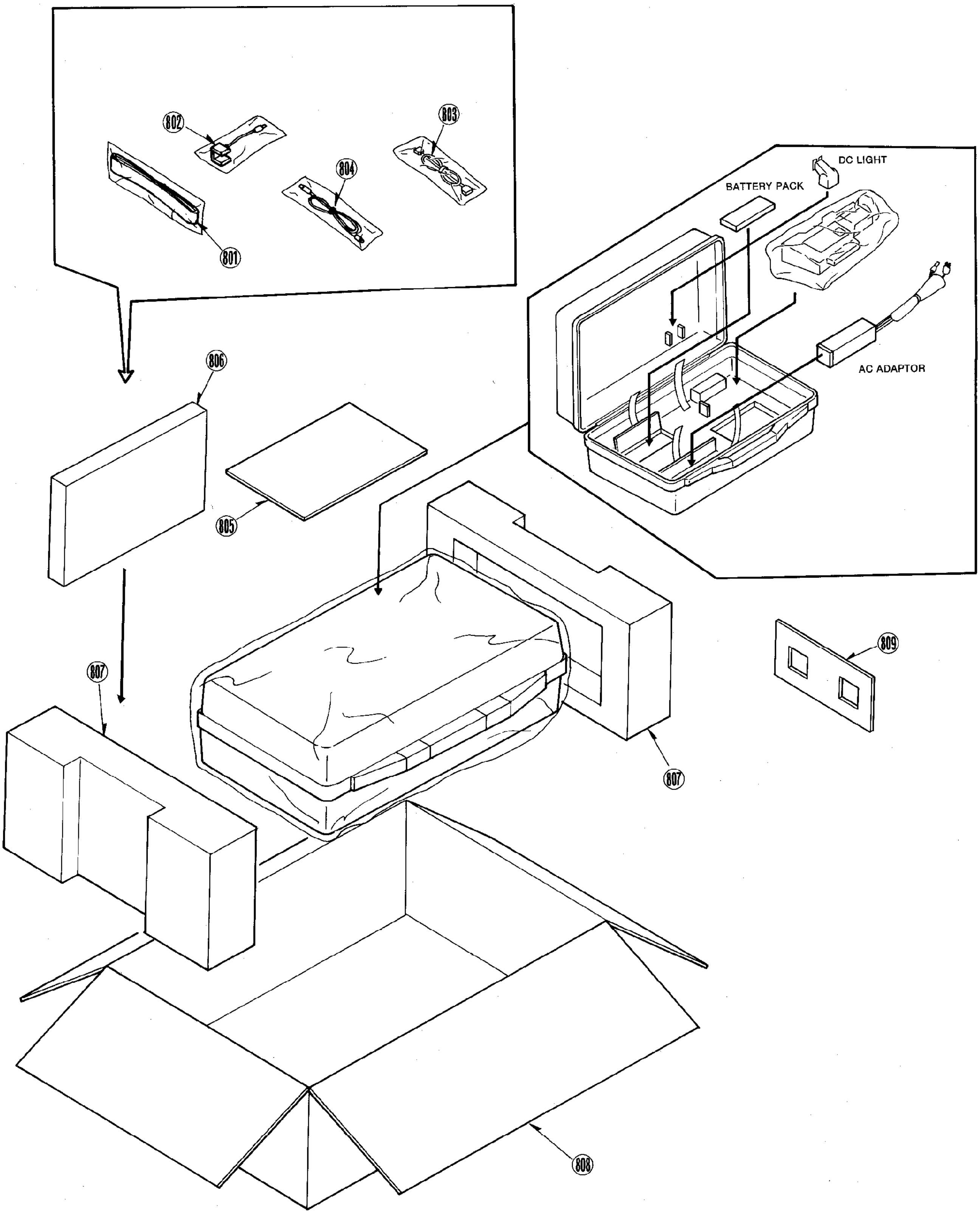


612
607
604
603
605
606
602
601
622
XTS2+4GFZ
E E.V.F. C.B.A.
E TALLY C.B.A.
609
608
XTB2+6JFZ
621
624
618
XTB2+6JFZ
620
610
617
623
616
619
XTB2+4JFZ
611
615
613
XTB26+8J
XTB2+6JFZ
614
XTB26+8J

❼ PACKING PARTS & ACCESSORIES SECTION
(NV-M40E/A, NV-M3000EN, NV-M3300MC)


705
704
703
AC ADAPTOR
702
DC LIGHT
701
BATTERY PACK
708
RF ADAPTOR
706
709
707
710

❽ PACKING PARTS & ACCESSORIES SECTION (NV-M3000EM)


802
803
804
801
DC LIGHT
BATTERY PACK
AC ADAPTOR
806
805
807
809
807
808

4-2. MECHANICAL REPLACEMENT PARTS LIST

Note:1.* Be sure to make your orders of replacement parts according to this list.
2.IMPORTANT SAFETY NOTICE
Components identified with the mark <!> have the special characteristics for safety. When replacing any of these components,use only the same type.

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
100(1)		VMD0954	CASSETTE GUIDE (L)	1	
101(1)		VDG0610	MAIN ARM GEAR (A)	1	
102(1)		VMD0953	CASSETTE GUIDE (R)	1	
103(1)		VXA4856	CASSETTE HOLDER UNIT	1	
104(1)		VXP1139	DAMPER UNIT	1	
105(1)		VXL1984	LOCK LEVER UNIT	1	
107(1)		VXA3863	STAND (R) UNIT	1	
109(1)		VMB1329	HOLDER SPRING (L)	1	
110(1)		VMB1621	HOLDER SPRING (R)	1	
112(1)		VSH0026	LEAF SW	1	
113(1)		VMD0952	LEAF SW COVER (O)	1	
114(1)		VMB1330	LOCK BOARD SPRING	1	
115(1)		VXA3023	STAND (L) UNIT	1	
116(1)		VMB1453	LOCK LEVER (B) SPRING	1	
117(1)		VML1650	LOCK LEVER (B)	1	
118(1)		VDP1096	LOCK ROLLER (O)	1	
119(1)		VXL1648	LOCK BOARD UNIT	1	
120(1)		VMB1331	LOCK LEVER (A) SPRING	1	
121(1)		VML1649	LOCK LEVER (A)	1	
122(1)		VXA4829	CASSETTE UP (O) UNIT	1	
123(1)		VXR0128	SUPPLY REEL TABLE	1	
124(1)		VXP0900	SUPPLY CLUTCH UNIT	1	
125(1)		VXP0901	TAKE-UP CLUTCH UNIT	1	
126(1)		VXR0201	TAKE-UP REEL TABLE	1	
128(1)		VSQ0808	DEW DETECTOR UNIT	1	
129(1)		VGQ0888	CASSETTE OPENER	1	
135(1)		VXZ0246	SOFT BRAKE (T) UNIT	1	
136(1)		VXP0899	DRIVE GEAR ARM UNIT	1	
137(1)		VHD0593	CYLINDER UNIT SCREW	2	
138(1)		VEH0574	UPPER CYLINDER UNIT	1	
140(1)		VEG0990	CYLINDER UNIT	1	<!>
141(1)		VDV0167	LOADING BELT	1	
142(1)		VDG0370	INTERMEDIATE PULLEY GEAR	1	
143(1)		VMX0653	CUT WASHER	1	
144(1)		VDG0372	DRIVE GEAR (B)	1	
145(1)		VXS0112	EARTH BRUSH UNIT	1	
147(1)		VDG0371	DRIVE GEAR (A)	1	
148(1)		VDG0202	CAM GEAR	1	
149(1)		VMX0388	THRUST WASHER	3	
150(1)		VXL1654	MAIN ROD (K) UNIT	1	
151(1)		VDG0211	LOADING GEAR (C) (2)	1	
152(1)		VMB1324	LOADING GEAR (C) SPRING	1	
153(1)		VDG0210	LOADING GEAR (C) (1)	1	
154(1)		VMA7228	GUARD PLATE	1	
155(1)		VML1707	DRIVE ARMKICK LEVER	1	
156(1)		VMB1388	DRIVE ARMKICK LEVER SPRING	1	
157(1)		VXP0632	SECTOR GEAR UNIT	1	
158(1)		VMA6560	SAFETY TAB SW BASE	1	
159(1)		VSH0023	SAFETY TAB SW	1	
160(1)		VDG0207	DRIVE GEAR (C)	1	
161(1)		VSS0193	MODE SW	1	
163(1)		VEK5926	STATOR UNIT	1	
164(1)		VXP1355	ROTOR UNIT	1	
165(1)		VXP0897	MAIN PULLEY UNIT	1	
166(1)		VDV0155	CAPSTAN BELT	1	
167(1)		VMD0935	BELT COVER	1	
170(1)		VHD0750	CYLINDER SCREW	3	
171(1)		VWJ0636	CAPSTAN FPC	1	
172(1)		XWGV0006	WASHER	3	
173(1)		VEK5947	PHOTO TR (R) U.	1	
174(1)		VEK6035	PHOTO TR (L) U.	1	
200(2)		VHD0282	P2 ADJUST PLATE SCREW	1	
201(2)		VMA6542	P2 ADJUST PLATE	1	
202(2)		VMD0701	SUPPLY POST STOPPER	1	
203(2)		VMD1451	V STOPPER BASE	1	
204(2)		VXP0841	SUPPLY ROLLER POST UNIT	1	
205(2)		VGQ0842	P2 CAP	1	
206(2)		VMD0769	TAPE PROTECTOR	1	
207(2)		VXA2221	SUPPLY SHAFT HOLDER(1)UNIT	1	
208(2)		VXA2256	SUPPLY SHAFT HOLDER ANGLE	1	
			UNIT	1	
209(2)		VMM0144	CONNECTION ROD	1	
210(2)		VMX1282	RING GUIDE SLEEVE UNIT	3	
211(2)		VXA2231	CONNECTION TIE UNIT	1	
212(2)		VMB1319	LOADING SPRING	1	
213(2)		VXA2253	LOADING RING (S) (1) UNIT	1	
214(2)		VDP1160	RING GUIDE ROLLER	3	
215(2)		VMB1319	LOADING SPRING	1	
216(2)		VXA3576	LOADING RING (T) (1) UNIT	1	
217(2)		VMC0250	PRESSER SPRING	1	
218(2)		VMX1279	RING GUIDE SLEEVE	3	
219(2)		VMD1155	LOADING GUIDE (S) (1)	1	
220(2)		VMD1128	LOADING GUIDE (S) (2)	1	
221(2)		VMX1088	SUPPLY UPPER LIMITER	1	
222(2)		VMS2888	P1 POST SLEEVE (B)	1	
223(2)		VMX1581	P1 COLLAR	1	
224(2)		VDP1265	P1 ROLLER	1	
225(2)		VMA6547	P1 LIMITER PLATE	1	
227(2)		VXA3112	P1 BASE (1) UNIT	1	
228(2)		VXD0098	THRUST SPACER	1	
229(2)		VHD0204	THRUST SCREW NUT	1	
230(2)		VHD0368	ROLLER POST SCREW	2	
231(2)		VMX0775	DUST SEAL	2	
232(2)		VXD0108	CAPSTAN HOUSING UNIT	1	
233(2)		VXP0927	TAKE-UP ROLLER POST UNIT	1	
234(2)		VMA6546	TAKE-UP SHAFT HOLDER ANGLE	1	
235(2)		VXA3116	TAKE-UP SHAFT HOLDER (A)	1	
			UNIT		
236(2)		VMD1165	TAKE-UP LOADING BASE	1	
237(2)		VMC0352	SHAFT HOLDER PRESSURE	1	
			SPRING		
238(2)		VMA7226	SHAFT HOLDER PLATE ANGLE	1	
239(2)		LN59NV	LED	1	
240(2)		VHD0367	TAKE-UP SHAFT ADJ. SCREW	1	
242(2)		VEM0287	LOADING MOTOR UNIT	1	<!>
245(2)		VMB1747	TENSION SPRING	1	
246(2)		VXL1262	TENSION ARM UNIT	1	
247(2)		VXZ0245	TENSION BAND UNIT	1	
248(2)		VML2065	BAND RELEASE ARM	1	
249(2)		VXA4828	TENSION KICK LEVER	1	
250(2)		VML2064	EJECT LEVER (A)	1	
251(2)		VXA3020	SUPPORTER UNIT	1	
252(2)		VMB1405	BRAKE SPRING	1	
253(2)		VXZ0207	BRAKE (R) UNIT	1	
254(2)		VXZ0206	BRAKE (L) UNIT	1	
255(2)		VXA4263	BRAKE PLATE (1) UNIT	1	
256(2)		VML2073	EJECT LEVER (B)	1	
257(2)		VED0183	A/C HEAD UNIT	1	
258(2)		VHD0275	A/C HEAD ADJUST SCREW	1	
259(2)		VMB1321	A/C HEAD ADJUST SPRING	1	
260(2)		VHD0381	A/C HEAD TILT ADJUST SCREW	1	
261(2)		VXL2256	A/C HEAD ARM UNIT	1	
262(2)		VWJ0608	A/C HEAD FPC	1	
263(2)		VHN0077	A/C HEAD ARM NUT	1	
264(2)		VMB1320	A/C HEAD SPRING	1	
265(2)		VDG0208	LOADING GEAR (A)	1	
266(2)		VDG0461	LOADING GEAR (B)	1	
267(2)		VHN0072	ADJUST NUT	1	
268(2)		VHN0047	M2 NYLON NUT	2	
269(2)		VMS2693	P4 POST SLEEVE	1	
270(2)		VXJ0057	P5 POST SLEEVE	1	
271(2)		VMB1322	P4,P5 SPRING	2	
272(2)		VML2067	PINCH LEVER	1	
273(2)		VMB2071	PINCH LEVER SPRING	1	
274(2)		VXL1652	PINCH ROLLER ARM (1) UNIT	1	
275(2)		VXL1650	PINCH ARM UNIT	1	
276(2)		VMB1326	PINCH ARM SPRING	1	
277(2)		VXL1264	SOFT BRAKE LEVER (S) UNIT	1	
278(2)		VMB1314	SOFT BRAKE SPRING (S)	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
279(2)		VMB1771	REW ARM SPRING	1	
280(2)		VXL1649	FF/REW ARM UNIT	1	
282(2)		VBS0021	FE HEAD	1	
283(2)		VMD1129	FE HEAD BASE	1	
284(2)		VMB1447	SUPPORTER SPRING	1	
285(2)		VXA3579	SLIDE BASE (O) UNIT	1	
286(2)		VMB1965	SLIDE SPRING	1	
287(2)		VML2285	IMPEDANCE LEVER	1	
288(2)		VHN0109	PUSH NUT	1	
289(2)		VMB1964	IMPEDANCE DRIVE SPRING	1	
290(2)		VXL1879	IMPEDANCE ARM (1) UNIT	1	
291(2)		VDP1285	IMPEDANCE ROLLER	1	
292(2)		VMX1088	SUPPLY UPPER LIMITER	1	
294(2)		VXA2220	SUPPLY SHAFT HOLDER UNIT	1	
295(2)		XWGV0006	WASHER	4	
301(3)		VXW0115	LENS U.	1	
302(3)		VXQ0331	LENS MAIN U.	1	
303(3)		VXP1300	2ND MOVING FRAME U.	1	
304(3)		VXP1302	SCREW SHAFT U.	1	
305(3)		VXQ0266	3RD FRAME LENS U.	1	
306(3)		VXL2126	IRIS U.	1	
307(3)		VXP1301	4TH MOVING FRAME U.	1	
308(3)		VMD1815	MASTER FLANGE	1	
309(3)		EVAJH4J03B14	ZOOM ENCODER U.	1	
310(3)		VEM0421	ZOOM MOTOR U.	1	
311(3)		VEM0422	FOCUS MOTOR U.	1	
312(3)		VMT0342	MOTOR CUSHION	2	
313(3)		VHD0666	SCREW	1	
314(3)		VMT0336	IRIS CUSHION	1	
315(3)		VDL0314	CRYSTAL FILTER	1	
316(3)		VMX2124	CCD CUSHION	1	
317(3)		VEK6071	CCD U.	1	
318(3)		VSC3804	CCD SHIELD CASE	1	
319(3)		VMD2023	CAM P.C.BOARD FRAME	1	
320(3)		VMP3695	CAMERA FRAME	1	
321(3)		VGF0416	SHADING PIECE	1	
322(3)		VMA8700	HOLD PLATE	1	
323(3)		VDW0182	FRONT FRAME	1	
324(3)		VDW0184	FOCUS RING	1	
325(3)		VDW0183	REAR FRAME	1	
326(3)		VMS4675	ZOOM GUIDE POLE	1	
327(3)		VMS4908	ZOOM GUIDE POLE (B)	1	
328(3)		VMS4676	FOCUS GUIDE POLE (A)	1	
329(3)		VMS4677	FOCUS GUIDE POLE (B)	1	
330(3)		VGQ1986	CHARA.GENE.JACK PIECE	1	
331(3)		VMP3694	LENS FRAME	1	
332(3)		VSC3632	HEAD AMP SHIELD CASE (C)	1	
401(4)		VMD2007	TRIPOD FRAME	1	
402(4)		VSC3733	TRIPOD SHIELD PLATE	1	
403(4)		VYP4219	CASSETTE COVER U.	1	NV-M40E/A
403(4)		VYP4182	CASSETTE COVER U.	1	NV-M3000EN/EM
403(4)		VYP4183	CASSETTE COVER U.	1	NV-M3300MC
404(4)		VYK4490	SIDE CASE (L)(1) U.	1	
405(4)		VYK4497	GRIP CASE (1) U.	1	
406(4)		VMG0462	ZOOM RUBBER CONTACT	2	
407(4)		VGQ1790	ZOOM PIECE	1	
408(4)		VGU5007	ZOOM BUTTON	1	
409(4)		VYF1893	HOOD CAP U.	1	
410(4)		VYC0557	GRIP BELT U.	1	
411(4)		VKM3088	FRONT CASE	1	
412(4)		VHD0386	GRIP BELT SCREW	1	
413(4)		VMP3822	SHOLDER ANGLE (F)	1	
414(4)		VGQ2848	LENS PIECE	2	
415(4)		VKM3090	LENS COVER	1	NV-M3000EN,M3300MC
415(4)		VKM3185	LENS COVER	1	NV-M3000EM,M40E/A
416(4)		VHD0371	SCREW	2	
417(4)		VYK4426	MANUAL FOCUS RING U.	1	
418(4)		VEK5864	MIC U.	1	
419(4)		VDW0191	LENS HOOD	1	
420(4)		VWJ0632	CYLINDER FLEX.CABLE	1	
421(4)		VWJ0636	CAPSTAN FLEX.CABLE	1	
423(4)		VHD0771	SCREW	2	
424(4)		VMP3688	FRAME SET. ANGLE	1	
501(5)		VGQ1129	BATTERY CATCHER	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
502(5)		VMC0876	BATTERY LOCK ANGLE	1	
503(5)		VGQ2849	BATTERY LOCK	1	
504(5)		VGQ2850	INTERMEDIATE LEVER	1	
505(5)		VMP3689	SHOLDER ANGLE	1	
506(5)		VMP3692	BATTERY CASE FIX.ANGLE	1	
507(5)		VMB2524	BATTERY PUSHING SPRING	1	
508(5)		VKM3072	BATTERY CASE U.	1	
509(5)		VKF1876	BATTERY DOOR	1	
510(5)		VMC0237	DOOR SPRING	1	
511(5)		VXU1104	TOP OPERATION PANEL (1)U.	1	
512(5)		VKF1881	CURSOR	1	
513(5)		VKF1878	RESET MEMORY DOOR	1	
514(5)		VMD2006	TOP FRAME	1	
515(5)		VEK6049	HOT SHOE TERMINAL U.	1	
516(5)		VKM3071	HANDLE UPPER CASE	1	
517(5)		VMC0726	SHOE SPRING	1	
518(5)		VMP2407	SHOE	1	
519(5)		VGU5898	SLIDE KNOB (A)	1	
520(5)		VGU5908	SLIDE KNOB (B)	1	
521(5)		VMC0889	CAMERA EARTH PLATE	1	
522(5)		VGP3162	CAMERA OPERATION PANEL	1	
523(5)		VYK4574	SIDE CASE (R) U.	1	NV-M40E/A
523(5)		VYK4484	SIDE CASE (R) U.	1	NV-M3000EN/EM
523(5)		VYK4486	SIDE CASE (R) U.	1	NV-M3300MC
524(5)		VMT0452	SHOLDER PAD	1	
525(5)		VWJ0640	AV JACK-MAIN CABLE	1	
526(5)		VYK4487	BATTERY CASE U.	1	
527(5)		VMZ2063	JACK BARRIER	1	
528(5)		VWJ0638	CAM OPE.-PROCESS FLEX.	1	
529(5)		VWJ0610	VTR OPE.-MAIN FLEX.	1	
601(6)		ELY07V570F	DY	1	
602(6)		VEK6002	CRT U.	1	
603(6)		VKM3078	FINDER CASE (UPPER)	1	
604(6)		VMC0316	EYE CAP HOLDER SPRING	1	
605(6)		VDL0347	LENS (2)	1	
606(6)		VKF1879	EYE CAP HOLDER	1	
607(6)		VMG0716	EYE CAP	1	
608(6)		VGU3895	EYESIGHT ADJ. LEVER	1	
609(6)		VKF1278	LENS HOLDER GUIDE	1	
610(6)		VKM3077	FINDER CASE (LOWER)	1	
611(6)		VYK4494	EVF MAIN CASE LOWER U.	1	
612(6)		VYK4493	EVF MAIN CASE UPPER U.	1	
613(6)		VMP1358	EVF BEARING	1	
614(6)		VMC0902	EVF LOCK SPRING	1	
615(6)		VMP3823	EVF ROTARY PLATE	1	
616(6)		VMP3690	EVF MOUNT ANGLE	1	
617(6)		VMX2172	WAVING WASHER	1	
618(6)		VGQ2914	EVF ROTATION BASE	1	
619(6)		VGQ2967	ROTARY BASE COVER	1	
620(6)		VMC0914	ROTARY BASE SPRING	1	
621(6)		VDL0349	MIRROR	1	
622(6)		VYQ0815	LENS HOLDER U.	1	
623(6)		VMC0890	SPRING PLATE	1	
624(6)		VGQ2846	WIRE COVER	1	
701(7)		VFC1309	SHOLDER STRAP	1	NV-M3000EN,M3300MC,
					M40E/A.
702(7)		VJA0180	BATTERY CATCHER	1	NV-M3000EN,M3300MC,
					M40E/A.
703(7)		VFA0039	AV OUTPUT CABLE	1	NV-M3000EN,M3300MC,
					M40A.
703(7)		VFA0095	AV OUTPUT CABLE	1	NV-M40E
704(7)		VJA0573	3PIN DC INPUT CABLE	1	NV-M3000EN,M3300MC,
					M40E/A.
705(7)		VPN3478	ACCESSORY PAD	1	NV-M3000EN,M3300MC,
					M40E/A.
706(7)		VPN3476	ACCESSORY BOX	1	NV-M3000EN,M3300MC,
					M40E/A.
707(7)		VQT4826	OPERATING INSTRUCTIONS	1	NV-M40E
			(ENGLISH/GERMAN/FRENCH/		
			SPANISH)		
707(7)		VQT4827	OPERATING INSTRUCTIONS	1	NV-M40E
			(ITALIAN/DUTCH/SWEDISH/		
			DENISH)		
707(7)		VQT4828	OPERATING INSTRUCTIONS	1	NV-M40E
			(FINNISH/RUSSIAN/POLISH)		

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
707(7)		VQT4829	OPERATING INSTRUCTIONS	1	NV-M40A
			(ENGLISH)		
707(7)		VQT4763	OPERATING INSTRUCTIONS	1	NV-M3000EN
			(ENGLISH/CHINESE/HINDI/		
			URDU)		
707(7)		VQT4764	OPERATING INSTRUCTIONS	1	NV-M3000EM
			(ENGLISH/ARABIC/HINDI/		
			URDU)		
707(7)		VQT4762	OPERATING INSTRUCTIONS	1	NV-M3300MC
			(ENGLISH/CHINESE)		
708(7)		VPN3474	CUSHION (UPPER)	1	NV-M3000EN,M3300MC
709(7)		VPN3475	CUSHION (LOWER)	1	NV-M3000EN,M3300MC
710(7)		VPG6647	PACKING CASE	1	NV-M40E
710(7)		VPG6624	PACKING CASE	1	NV-M40A
710(7)		VPG6521	PACKING CASE	1	NV-M3000EN
710(7)		VPG6519	PACKING CASE	1	NV-M3300MC
801(8)		VFC1309	SHOLDER STRAP	1	NV-M3000EM
802(8)		VJA0180	BATTERY CATCHER	1	NV-M3000EM
803(8)		VJA0573	3PIN DC INPUT CABLE	1	NV-M3000EM
804(8)		VFA0039	AV OUTPUT CABLE	1	NV-M3000EM
806(8)		VPK1492	ACCESSORY CASE	1	NV-M3000EM
807(8)		VPN2612	CUSHION	2	NV-M3000EM
808(8)		VPG6520	PACKING CASE	1	NV-M3000EM
809(8)		VPQ0001	HANDLE	1	NV-M3000EM
			JIG & TOOLS		
		VFK0374	COLOUR TEMP. CONV. FILTER	1	(C12) OR VFK0713
		VFK0375	COLOUR TEMP. CONV. FILTER	1	(C2) OR VFK0716
		VFK0644	EVR FIXTURE	1	
		VFK0701ROM7	ROM	1	
		VFK0766A	EVR CONNECTION CABLE	1	
		VFK0734W	CONNECTION CABLE FOR	1	
			MEASURMENT	1	
		VFK0667	EXTENSION CABLE 30P	1	
		VFK0724	EXTENSION CABLE 32P	1	
		VFK0783	EXTENSION CABLE 12P	1	
		VFK0802	FLAT CABLE 24P	1	
		VFK0823	FLAT CABLE 6P	1	
		VFJ8125H3F	VHS-ALLGNMENT TAPE (PAL)	1	
		VFK0144	RETAINING RING REMOVER	1	
			(3mm)		
		VFK0191	POST ADJUSTMENT PLATE	1	
		VFK0190	REEL TABLE HEIGHT GAUGE	1	
		VFK0189	H-POSITION ADJ. -FIXTURE	1	
		VFK0137	POST ADJUSTMENT SCREWDRIVER	1	
		VFK66	FAN TYPE TENSION GAUGE	1	
		VFK0326	HEX WRENCH SET	1	
		VFK0343	CHECK LIGHT	1	
		VFK27	HEAD CLEANING STICK	1	
		MOR265	MORLYTONE GREASE	1	
		VFK0136	FINE ADJUSTMENT SCREWDRIVER	1	
		VFK0134	ADAPTOR FOR VFK0133	1	
		VFK0133	DIAL TORQUE GAUGE	1	

4-3. ELECTRICAL REPLACEMENT PARTS LIST

Note:1.* Be sure to make your orders of replacement parts according to this list.
2.IMPORTANT SAFETY NOTICE
Components identified with the mark <!> have the special characteristics for safety. When replacing any of these components,use only the same type.
3.Unless otherwise specified,
All resistors are in OHMS ,K=1,000 OHMS. All capacitors are in MICRO-FARADS(uf),P=uuF.
4.The P.C.Board units marked width'■'show below the main assembled parts.
5.Printed circuit board assembly with mark(NLA) is no longer available after discontinuation of the product.

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
		VEP22117B	CCD DRIVE C.B.A.	1	(NLA)
		VEP23146B	PROCESS C.B.A.	1	(NLA)
		VEP20437B	CAMERA OPERATION (A) C.B.A.	1	(NLA)
					INCLUDING THE CAMERA
					OPERATION (A)
					C.B.A.(VEP20438B).
		VEP20438B	CAMERA OPERATION (B) C.B.A.	1	(NLA)
					INCLUDED IN CAMERA
					OPERATION (B)
					C.B.A.(VEP20437B).
		VEK5916	LENS FLEXIBLE CARD C.B.A.	1	(NLA)
		VEK5917	MANUAL FOCUS SENSOR	1	(NLA)
			FLEXIBLE CARD C.B.A.		
		VEP28055A	EVF C.B.A.	1	(NLA)
		VEP06832A	TALLY C.B.A.	1	(NLA)
		VEP03945B	MAIN C.B.A.	1	(NLA)
		VEP06817B	VTR OPERATION (A) C.B.A.	1	(NLA)
					INCLUDING THE VTR
					OPERATION (B)
					C.B.A.(VEP06847B).
		VEP06847B	VTR OPERATION (B) C.B.A.	1	(NLA)
					INCLUDED IN VTR
					OPERATION (A)
					C.B.A.(VEP06817B).
		VEP03946B	AV JACK (A) C.B.A.	1	(NLA)
		VEP03957B	AV JACK (B) C.B.A.	1	(NLA)
		VEK5862	ZOOM C.B.A.	1	(NLA)
					INCLUDING THE S/S
					C.B.A.(VEK5869),
					SUB S/S C.B.A.
					(VEK5870).
		VEK5869	S/S C.B.A.	1	(NLA)
					INCLUDED IN ZOOM
					C.B.A.(VEK5862).
		VEK5870	SUB S/S C.B.A.	1	(NLA)
					INCLUDED IN ZOOM
					C.B.A.(VEK5862).
		VEK5865	CHARA/GENE C.B.A.	1	(NLA)
		VEK5868	FE HEAD C.B.A.	1	(NLA)
		VES0689	MECHANISM CONNECTION C.B.A.	1	(NLA)
			(MODE SELECT SWITCH UNIT)		
	■	VEP22117B	CCD DRIVE C.B.A.		(NLA)
			CONNECTORS		
B201		VJP3159C032	CONNECTOR (MALE)	1	
B202		VJP2962C012	CONNECTOR (MALE)	1	
			CAPACITORS		
C202,03		ECUX1H270JCV	C.CAPACITOR CH 50V 27P	2	
C204		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C205		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C206,07		ECUM1C105ZFN	C.CAPACITOR 16V 1U	2	
C208		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C209		ECST1CY335Z	T.CAPACITOR 16V 3.3U	1	
C210		ECST1VX155Z	T.CAPACITOR 35V 1.5U	1	
C211		ECST1CY335Z	T.CAPACITOR 16V 3.3U	1	
C212		ECST1VX225Z	T.CAPACITOR 35V 2.2U	1	
C213,14		ECUX1H270JCV	C.CAPACITOR CH 50V 27P	2	
C215		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C216,17		ECUX1H270JCV	C.CAPACITOR CH 50V 27P	2	
C218		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C220		ECUX1H150JCV	C.CAPACITOR CH 50V 15P	1	
C221		ECUM1C105ZFN	C.CAPACITOR 16V 1U	1	
C222		ECUX1H120JCV	C.CAPACITOR CH 50V 12P	1	
C223		ECRJA020E11	CAPACITOR	1	
C224		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C226		ECUM1C185ZFN	C.CAPACITOR CH 16V 1.8U	1	
C227,28		ECST0JY106Z	T.CAPACITOR 6.3V 10U	2	
C229		ECEV0GA330	E.CAPACITOR 4V 33U	1	
C230		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C231,32		ECUM1C105ZFN	C.CAPACITOR 16V 1U	2	
C233		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C234		ECUM1C105ZFN	C.CAPACITOR 16V 1U	1	
C235		ECST1CX685Z	T.CAPACITOR 16V 68U	1	
C236		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C237		ECST0GY106Z	T.CAPACITOR CH 4V 10U	1	
C238-40		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	3	
C241		ECUX1H270JCV	C.CAPACITOR CH 50V 27P	1	
C242		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C243		ECUX1C473ZFV	C.CAPACITOR CH 16V 0.047U	1	
C244		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C245		ECST1CX685Z	T.CAPACITOR 16V 68U	1	
C246		ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	1	
C248		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C251		ECST1VX155Z	T.CAPACITOR 35V 1.5U	1	
C252		ECUX1H100DCV	C.CAPACITOR CH 50V 10P	1	
C254		ECUX1H100DCV	C.CAPACITOR CH 50V 10P	1	
C258		ECUM1C105ZFN	C.CAPACITOR 16V 1U	1	
C259		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C260,61		ECUX1H560JCV	C.CAPACITOR CH 50V 56P	2	
C262		ECUX1H100DCV	C.CAPACITOR CH 50V 10P	1	
C264		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C266		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C267-69		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	3	
C270		ECUX1H050DCV	C.CAPACITOR CH 50V 5P	1	
C271		ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	1	
			DIODES		
D201		MA110	DIODE	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
D203,04		MA110	DIODE	2	
D205		MA728	DIODE	1	
D206,07		MA110	DIODE	2	
D209		MA110	DIODE	1	
			FILTERS		
FL201		ELB3H009	FILTER	1	
			INTEGRATED CIRCUITS		
IC201		MN5188	IC	1	
IC202		MN3110SA	IC	1	
IC203		AN2013SB	IC	1	
IC204		AN2033FAP	IC	1	
IC205		LM358DB	IC	1	
			COILS		
L201-07		ELJFC150KF	COIL 15UH	7	
L208		ELJSC390KF	COIL 39UH	1	
L209		VLQ0556	COIL	1	
L210		ELJFC150KF	COIL 15UH	1	
L211,12		VLQ0556	COIL	2	
L214,15		VLQ0555	COIL	2	
L216		VLQ0291	COIL	1	
L221,22		VLQ0401K4R7	COIL 4.7UH	2	
			TRANSISTORS		
Q201		XP4654	TRANSISTOR	1	
Q202,03		2SD1819	TRANSISTOR	2	
Q205		XP4654	TRANSISTOR	1	
Q206		XN4601	TWIN TRANSISTOR	1	
Q207		XP4654	TRANSISTOR	1	
Q211		2SB1218	TRANSISTOR	1	
Q214		2SD1819	TRANSISTOR	1	
Q215		XN4601	TWIN TRANSISTOR	1	
Q219		2SB1218	TRANSISTOR	1	
			RESISTORS		
R201		ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	1	
R202		ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R203		ERJ3GEYJ183	M.RESISTOR CH 1/16W 18K	1	
R204		ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	1	
R206		ERJ3GEYJ181	M.RESISTOR CH 1/16W 180	1	
R209		ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	1	
R210		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R211		ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	1	
R212		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R214		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R215		ERJ3GEYJ152	M.RESISTOR CH 1/16W 1.5K	1	
R216		ERJ3GEYJ334	M.RESISTOR CH 1/16W 330K	1	
R218		ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R219		ERJ3GEYJ330	M.RESISTOR CH 1/16W 33	1	
R220,21		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	2	
R223		ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	1	
R224		ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R225		ERJ3GEYJ154	M.RESISTOR CH 1/16W 150K	1	
R226		ERJ3GEYJ684	M.RESISTOR CH 1/16W 680K	1	
R227		ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R228		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R229		ERJ3GEYJ681	M.RESISTOR CH 1/16W 680	1	
R230		ERJ3GEYJ331	M.RESISTOR CH 1/16W 330	1	
R232		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R236		ERJ3GEYJ182	M.RESISTOR CH 1/16W 1.8K	1	
R237		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R239		ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R241		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R242		ERJ3GEYJ822	M.RESISTOR CH 1/16W 8.2K	1	
R243		ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	1	
R244		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R245		ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	1	
R249		ERJ3GEYJ562	M.RESISTOR CH 1/16W 5.6K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R253		ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	1	
R254		ERJ3GEYJ824	M.RESISTOR CH 1/16W 820K	1	
R255,56		ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	2	
R257		ERJ3GEYJ821	M.RESISTOR CH 1/16W 820	1	
R258		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R259		ERJ3GEYJ562	M.RESISTOR CH 1/16W 5.6K	1	
R265		ERJ3GEYJ332	M.RESISTOR CH 1/16W 3.3K	1	
R266		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R267		ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R268		ERJ3GEYJ153	M.RESISTOR CH 1/16W 15K	1	
R269		ERJ3GEYJ682	M.RESISTOR CH 1/16W 6.8K	1	
R270		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R271		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R272		ERJ3GEYJ393	M.RESISTOR CH 1/16W 39K	1	
R273		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R274-76		ERJ3GEYJ681	M.RESISTOR CH 1/16W 680	3	
R277		ERJ3GEYJ123	M.RESISTOR CH 1/16W 12K	1	
R278		ERJ3GEYJ823	M.RESISTOR CH 1/16W 82K	1	
R279		ERJ3GEYJ562	M.RESISTOR CH 1/16W 5.6K	1	
R280		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R281-83		ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	3	
R284		ERJ3GEYJ330	M.RESISTOR CH 1/16W 33	1	
R285,86		ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	2	
R287		ERJ3GEYJ330	M.RESISTOR CH 1/16W 33	1	
R288,89		ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	2	
R290		ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	1	
			CRYSTAL OSCILLATORS		
X201		VSX0449	CRYSTAL OSCILLATOR	1	
			MISCELLANEOUS		
		VSC3804	SHIELD COVER (A)	1	
		VSC3636	SHIELD COVER (B)	1	
	■	VEP23146B	PROCESS C.B.A.		(NLA)
			CONNECTORS		
B301		VJS3024C032	CONNECTOR (FEMALE)	1	
B302		VJP2962C030	CONNECTOR (MALE)	1	
B303		VJP2962C024	CONNECTOR (MALE)	1	
			CAPACITORS		
C301-03		ECST0JY106Z	T.CAPACITOR 6.3V 10U	3	
C304		ECUM1C105ZFM	C.CAPACITOR CH 16V 1U	1	
C305		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C306		ECUM1C105ZFM	C.CAPACITOR CH 16V 1U	1	
C307,08		ECST0JY106Z	T.CAPACITOR 6.3V 10U	2	
C309		ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	1	
C311		ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	1	
C312		ECUM1C224ZFN	C.CAPACITOR CH 16V 0.22U	1	
C313		ECUX1H151JCV	C.CAPACITOR CH 50V 150P	1	
C314,15		ECST0JY106Z	T.CAPACITOR 6.3V 10U	2	
C317		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C318		ECUM1C105ZFN	C.CAPACITOR 16V 1U	1	
C321		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C322		ECUM1C105ZFN	C.CAPACITOR 16V 1U	1	
C323		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C324		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C325		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C326		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C328,29		ECUM1C105ZFM	C.CAPACITOR CH 16V 1U	2	
C330,31		ECUX1H101JCV	C.CAPACITOR CH 50V 100P	2	
C332		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C334		ECST0GY106Z	T.CAPACITOR CH 4V 10U	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C335		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C336		ECUX1H222KBV	C.CAPACITOR CH 50V 2200P	1	
C337-40		ECUX1H560JCV	C.CAPACITOR CH 50V 56P	4	
C341,42		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	2	
C343		ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	
C345-52		ECUX1H330JCV	C.CAPACITOR CH 50V 33P	8	
C357		ECUM1C224ZFN	C.CAPACITOR CH 16V 0.22U	1	
C358-62		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	5	
C363		ECUX1H150JCV	C.CAPACITOR CH 50V 15P	1	
C701		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C703		ECUX1H151JCV	C.CAPACITOR CH 50V 150P	1	
C704		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C705		ECUM1C683ZFV	C.CAPACITOR CH 16V 0.068U	1	
C706-09		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	4	
C710		ECUX1C473ZFV	C.CAPACITOR CH 16V 0.047U	1	
C711		ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	1	
C712		ECUX1H560JCV	C.CAPACITOR CH 50V 56P	1	
C713,14		ECUM1C224ZFN	C.CAPACITOR CH 16V 0.22U	2	
C715		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C716		ECUM1C224ZFN	C.CAPACITOR CH 16V 0.22U	1	
C717		ECST1CY335Z	T.CAPACITOR 16V 3.3U	1	
C718		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C719		ECST0GY106Z	T.CAPACITOR CH 4V 10U	1	
C720,21		ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	2	
C722-24		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	3	
C726		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C727		ECEV1EA330	E.CAPACITOR CH 25V 33U	1	
C728		ECUX1H332KBV	C.CAPACITOR CH 50V 3300P	1	
C729,30		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	2	
C731		ECUX1H472KBV	C.CAPACITOR CH 50V 4700P	1	
C732		ECUM1C105ZFN	C.CAPACITOR 16V 1U	1	
C733		ECUX1H472KBV	C.CAPACITOR CH 50V 4700P	1	
C734		ECUX1H560JCV	C.CAPACITOR CH 50V 56P	1	
C738		ECUM1C105ZFM	C.CAPACITOR CH 16V 1U	1	
C746		ECUM1C225ZFM	C.CAPACITOR CH 16V 2.2U	1	
C747		ECEV0JA470	E.CAPACITOR 6.3V 47U	1	
C748		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
			DIODES		
D301		MA110	DIODE	1	
D302		MA728	DIODE	1	
D701		MA110	DIODE	1	
			CONNECTORS		
FP301		VJS2958D017	CONNECTOR (FEMALE)	1	
FP701		VJS2959D024	CONNECTOR (FEMALE)	1	
			INTEGRATED CIRCUITS		
IC301-03		ZA4030	IC	3	
IC304		MN6733	IC	1	
IC306		MN6732	IC	1	
IC307		MN655431SH	IC	1	
IC308		MN73512XWAS	IC	1	
IC309		MN1882010V4Q	IC	1	
IC310		AK6420F	IC	1	
IC311		MN13821-Y	IC	1	
IC312		MN1882010V4P	IC	1	
IC315		MN657011H	IC	1	
IC316		MN5185	IC	1	
IC317		AN2040SB	IC	1	
IC318		TC7S08F	IC	1	
IC319,20		TC7S32F	IC	2	
IC330		M62352GP	IC	1	
IC701		MN12821Q	IC	1	
IC702		MN6781VMDB	IC	1	
IC703		AN2585FAP	IC	1	
IC704		LM358DB	IC	1	
IC705		LM324DB	IC	1	
IC706		AN6663S	IC	1	
IC707		AN6545SP	IC	1	
IC708		TB6504F	IC	1	
IC709		TC7S08F	IC	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
			COILS		
L301		ELJFC6R8ZB	COIL 6.8UH	1	
L302-04		ELJSC101KF	COIL 100UH	3	
L305		ELJFC150KF	COIL 15UH	1	
L306-11		ELJFC6R8ZB	COIL 6.8UH	6	
L312		VLQ0291	COIL	1	
L313,14		ELJFC6R8ZB	COIL 6.8UH	2	
L315		VLQ0291	COIL	1	
L316,17		ELJFC6R8ZB	COIL 6.8UH	2	
L320		ELJSC330KB	COIL 33UH	1	
L321		VLQ0291	COIL	1	
L322		VLQ0401K220	COIL 22UH	1	
L323		VLQ0291	COIL	1	
L702		ELJPA101KB	COIL 100UH	1	
L703		ELJFC150KF	COIL 15UH	1	
L704		ELJFA150KB	COIL 15UH	1	
L705		ELJPA150KB	COIL 15UH	1	
L706		ELJFA150KB	COIL 15UH	1	
			CONNECTORS		
P305		VJP3172D005	CONNECTOR (MALE)	1	
			TRANSISTORS		
Q305		2SC4176	TRANSISTOR	1	
Q701		2SD1819	TRANSISTOR	1	
Q702		2SD2210	TRANSISTOR	1	
			COMBINATION PARTS		
QR301		UN5213	TRANSISTOR	1	
QR701,02		UN5211	TRANSISTOR-RESISTOR	2	
			RESISTORS		
R301		ERJ3GEYJ563	M.RESISTOR CH 1/16W 56K	1	
R302,03		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	2	
R304		ERJ3GEYJ271	M.RESISTOR CH 1/16W 270	1	
R305,06		ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	2	
R307		ERJ3GEYJ273	M.RESISTOR CH 1/16W 27K	1	
R308,09		ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	2	
R310		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R311		ERJ3GEYJ560	M.RESISTOR CH 1/16W 56	1	
R312		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R313		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R314		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R315,16		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	2	
R318		ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	1	
R319		ERJ3GEYJ562	M.RESISTOR CH 1/16W 5.6K	1	
R320,21		ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	2	
R322		ERJ3GEYJ121	M.RESISTOR CH 1/16W 120	1	
R323-26		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	4	
R328		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R329		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R330-33		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	4	
R334		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R335		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R337		ERJ3GEYJ273	M.RESISTOR CH 1/16W 27K	1	
R338,39		ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	2	
R340		ERJ3GEYJ273	M.RESISTOR CH 1/16W 27K	1	
R341		ERJ3GEYJ821	M.RESISTOR CH 1/16W 820	1	
R342,43		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	2	
R344-47		ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	4	
R348-50		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	3	
R351,52		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	2	
R353-55		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	3	
R357-71		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	15	
R372		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R374-81		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	8	
R382,83		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	2	
R384		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R387-89		ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	3	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R390,91		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	2	
R392		ERJ3GEYJ122	M.RESISTOR CH 1/16W 1.2K	1	
R393		ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	1	
R394		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R396,97		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	2	
R398		ERJ3GEYJ561	M.RESISTOR CH 1/16W 560	1	
R399-02		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	4	
R405-21		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	17	
R422		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R424		ERJ3GEYJ273	M.RESISTOR CH 1/16W 27K	1	
R425		ERJ3GEYJ393	M.RESISTOR CH 1/16W 39K	1	
R426-49		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	24	
R450,51		ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	2	
R452-58		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	7	
R460-62		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	3	
R464		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R465,66		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	2	
R467		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R468-89		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	22	
R490		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R492		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R493		ERJ3GEYJ471	M.RESISTOR CH 1/16W 470	1	
R494,95		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	2	
R499		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R500		ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	1	
R501		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R502		ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R502		ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	1	
R701		ERJ3GEYJ563	M.RESISTOR CH 1/16W 56K	1	
R702		ERJ3GEYJ393	M.RESISTOR CH 1/16W 39K	1	
R703		ERJ3GEYG332	M.RESISTOR CH 1/16W 3.3K	1	
R704,05		ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	2	
R706		ERJ3GEYG562	M.RESISTOR CH 1/16W 5.6K	1	
R707		ERJ3GEYG332	M.RESISTOR CH 1/16W 3.3K	1	
R708		ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	1	
R710		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R711		ERJ3GEYG103	M.RESISTOR CH 1/16W 10K	1	
R712		ERJ3GEYG303	M.RESISTOR CH 1/16W 30K	1	
R713		ERJ3GEYJ124	M.RESISTOR CH 1/16W 120K	1	
R714		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R715		ERJ3GEYJ823	M.RESISTOR CH 1/16W 82K	1	
R716		ERJ3GEYJ334	M.RESISTOR CH 1/16W 330K	1	
R717,18		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	2	
R719		ERJ3GEYJ154	M.RESISTOR CH 1/16W 150K	1	
R720		ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	1	
R721		ERJ3GEYJ225	M.RESISTOR CH 1/16W 2.2M	1	
R722		ERJ3GEYJ152	M.RESISTOR CH 1/16W 1.5K	1	
R723		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R724		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R725		ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	1	
R726		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R727		ERJ3GEYJ123	M.RESISTOR CH 1/16W 12K	1	
R728		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R729		ERJ3GEYJ123	M.RESISTOR CH 1/16W 12K	1	
R730		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R731		ERJ3GEYJ181	M.RESISTOR CH 1/16W 180	1	
R732-34		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	3	
R735		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R736		ERJ3GEYJ823	M.RESISTOR CH 1/16W 82K	1	
R738		ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	1	
R739		ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	1	
R740		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R741,42		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	2	
R743		ERJ3GEYJ563	M.RESISTOR CH 1/16W 56K	1	
R744		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R745		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R746		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R747,48		ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	2	
R749		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R750		ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R751		ERJ3GEYJ3R3	M.RESISTOR CH 1/16W 3.3K	1	
R752		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R753		ERJ3GEYJ273	M.RESISTOR CH 1/16W 27K	1	
R754		ERJ3GEYJ3R3	M.RESISTOR CH 1/16W 3.3K	1	
R755		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R756		ERJ3GEYJ153	M.RESISTOR CH 1/16W 15K	1	
R757		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
			THERMISTORS		
TH701		VRT0032K152	THERMISTOR	1	
			VARIABLE RESISTORS		
VR701		EVM7JSX30B54	V.RESISTOR 50K	1	
			CRYSTAL OSCILLATORS		
X301,02		EF0V8004B0A	CRYSTAL OSCILLATOR	2	
X701		EF0V6754B0A	CRYSTAL OSCILLATOR	1	
X702		EF0V8004B0A	CRYSTAL OSCILLATOR	1	
			MISCELLANEOUS		
		VSC3637	SHIELD COVER (A)	1	
		VSC3638	SHIELD COVER (B)	1	
	■	VEP20437B	CAMERA OPERATION (A) C.B.A.		(NLA)
			CONNECTORS		
FP6701		VJS2140	CONNECTOR (FEMALE)	1	
P6007		VJS3172B006	CONNECTOR (FEMALE)	1	
P6701		VJP3331B006	CONNECTOR (MALE)	1	
P6701		VJS3172B006	CONNECTOR (FEMALE)	1	
			SWITCHES		
SW6701-06		EVQ21804B	SWITCH	6	
SW6707		VSS0126	SWITCH	1	
SW6708		EVQ21804B	SWITCH	1	
SW6710,11		EVQ21804B	SWITCH	2	
SW6713		EVQ21804B	SWITCH	1	
SW6714		VSS0127	SWITCH	1	
SW6716,17		EVQ21804B	SWITCH	2	
SW6719		EVQ21804B	SWITCH	1	
SW6722-24		EVQ21804B	SWITCH	3	
			MISCELLANEOUS		
		VWJ04C0035AA	FLAT CARD CABLE	1	
	■	VEK5916	LENS FLEXIBLE CARD C.B.A.		(NLA)
			MISCELLANEOUS		
		SG-211S	PHOTO COUPLER	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
	■	VEK5917	MANUAL FOCUS SENSOR		(NLA)
			FLEXIBLE CARD C.B.A.		
			MISCELLANEOUS		
		SG-211S	PHOTO COUPLER	2	
	■	VEP28055A	E.V.F. C.B.A.		(NLA)
			CAPACITORS		
C801		ECHU1C104J	F.CAPACITOR CH 16V 0.1U	1	
C802		ECEA1CKE101	E.CAPACITOR 16V 100U	1	
C804		ECUM1C155ZFN	C.CAPACITOR CH 16V 1.5U	1	
C805		ECEA0JKE221	E.CAPACITOR 6.3V 220U	1	
C806		ECUM1E123KBN	C.CAPACITOR CH 25V 0.012U	1	
C807		ECEA1HKS010	E.CAPACITOR 50V 1U	1	
C808		ECUM1C105ZFN	C.CAPACITOR 16V 1U	1	
C809		ECA1EKF100	E.CAPACITOR 25V 10	1	
C810		ECUM2A472JUM	C.CAPACITOR CH 4700P	1	
C811		ECEA1CKE101	E.CAPACITOR 16V 100U	1	
C812		ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	
C813		VCK0088K151	CAPACITOR	1	
C814		ECEA1HKS010	E.CAPACITOR 50V 1U	1	
C815		ECUM2H331KBM	C.CAPACITOR 500V 330P	1	
C816		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C820		ECUM2A102JUN	C.CAPACITOR CH 100V 1000P	1	
C831		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
			DIODES		
D801		MA141K	DIODE	1	
D802		SFPL-52	DIODE	1	
			INTEGRATED CIRCUITS		
IC801		AN2515S	IC	1	
			COILS		
L801		VLQ0319K390	COIL 39UH	1	
L802		ELH5L215D	COIL	1	
			CONNECTORS		
P801		VJP1598T	CONNECTOR (MALE) 5P	1	
P802		VJP3007E004	CONNECTOR (MALE)	1	
P803		VJP1229T	CONNECTOR (MALE)	1	
P804		VJP3007E003	CONNECTOR (MALE)	1	
			TRANSISTORS		
Q802		2SD968A	TRANSISTOR	1	
Q803		2SA1532	TRANSISTOR	1	
			RESISTORS		
R801		ERJ6ENF4422	M.RESISTOR	1	
R802		ERJ6GEYJ3R9	M.RESISTOR CH 1/10W 3.9	1	
R805		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R807		ERJ3GEYJ4R7	M.RESISTOR CH 1/16W 4.7	1	
R808		ERJ3GEYJ242	M.RESISTOR CH 1/16W 2.4K	1	
R809		ERJ3GEYJ564	M.RESISTOR CH 1/16W 560K	1	
R810		ERJ6GMYF104	M.RESISTOR	1	
R814		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R815,16		ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	2	
R817		ERJ3GEYJ242	M.RESISTOR CH 1/16W 2.4K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R818		ERJ3GEYJ153	M.RESISTOR CH 1/16W 15K	1	
R819,20		ERJ6GEYJ335	M.RESISTOR CH 1/10W 3.3M	2	
R821		ERJ6GMYJ105	M.RESISTOR CH 1/10W 1M	1	
R823		ERJ3GEYJ220	M.RESISTOR CH 1/16W 22	1	
R825		VSF0015A025	FUSE	1	
R830		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R832		ERJ6ENF4222	M.RESISTOR CH 1/10W 2.2K	1	
R833		ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	1	
			TRANSFORMERS		
T801		ETF08L16B	TRANSFORMER	1	
			VARIABLE RESISTORS		
VR801		EVM7JSX30BE2	V.RESISTOR	1	
VR803		EVMLPNA00BV6	V.RESISTOR	1	
VR804		EVMLPNA00BE6	V.RESISTOR	1	
	■	VEP06832A	TALLY C.B.A.		(NLA)
			CAPACITORS		
C1881		ECEA0JKS101	E.CAPACITOR 6.3V 100U	1	
			DIODES		
D1881		BR3378S	DIODE	1	
D1882		PN327-JB	DIODE	1	
			CONNECTORS		
P1881		VJP1597T	CONNECTOR (MALE) 4P	1	
			TRANSISTORS		
Q1881		2SD637	TRANSISTOR	1	
			RESISTORS		
R1881		ERDS2TJ224	C.RESISTOR 1/4W 220K	1	
R1882		ERDS2TJ473	C.RESISTOR 1/4W 47K	1	
R1883		ERDS2TJ181	C.RESISTOR 1/4W 180	1	
	■	VEP03945B	MAIN C.B.A.		(NLA)
			CONNECTORS		
B3001		VJS2961C030	CONNECTOR (FEMALE)	1	
B5001		VJS2961C006	CONNECTOR (FEMALE)	1	
B6001		VJP3358C016	CONNECTOR (MALE)	1	
			CAPACITORS		
C1001		ECUM1C335ZFM	C.CAPACITOR CH 16V 3.3U	1	
C1002		ECEV1EA680	E.CAPACITOR CH 25V 68U	1	
C1003		ECGC0KA8R2	CAPACITOR	1	
C1004		ECUX1H471KBV	C.CAPACITOR CH 50V 470P	1	
C1005		ECST1CY335Z	T.CAPACITOR 16V 3.3U	1	
C1006		ECUM1C105ZFM	C.CAPACITOR CH 16V 1U	1	
C1007		ECEV0JA220	E.CAPACITOR 6.3V 22U	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C1008		ECGC0KA8R2	CAPACITOR	1	
C1009		ECUX1H681KBV	C.CAPACITOR CH 50V 680P	1	
C1010		ECST1CY335Z	T.CAPACITOR 16V 3.3U	1	
C1011		ECUM1C225ZFM	C.CAPACITOR CH 16V 2.2U	1	
C1012		ECUX1H222KBV	C.CAPACITOR CH 50V 2200P	1	
C1013		ECGC1BA4R7	CAPACITOR	1	
C1014		ECUX1H561KBV	C.CAPACITOR CH 50V 560P	1	
C1016		ECUM1C335ZFM	C.CAPACITOR CH 16V 3.3U	1	
C1017		ECUM1E105ZFM	C.CAPACITOR CH 25V 1U	1	
C1019		ECUM1E474ZFM	C.CAPACITOR CH 25V 0.47U	1	
C1020		ECUM1C105ZFM	C.CAPACITOR CH 16V 1U	1	
C1022		ECUM1H104ZFM	C.CAPACITOR CH 50V 0.1U	1	
C1024		ECUM1C474ZFM	C.CAPACITOR CH 16V 0.47U	1	
C1025		ECUM1E104KBN	C.CAPACITOR CH 25V 0.1U	1	
C1026		ECEV1HA010	E.CAPACITOR 50V 1U	1	
C1027		ECUX1H121JCV	C.CAPACITOR CH 50V 120P	1	
C1028		ECUM1C474KBM	C.CAPACITOR CH 16V 0.47U	1	
C1029		ECUX1H471KBV	C.CAPACITOR CH 50V 470P	1	
C1030		ECUX1H822KBV	C.CAPACITOR CH 50V 8200P	1	
C1031		ECUX1H471KBV	C.CAPACITOR CH 50V 470P	1	
C1032		ECUX1H822KBV	C.CAPACITOR CH 50V 8200P	1	
C1033,34		ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	2	
C1035		ECUX1H680JCV	C.CAPACITOR CH 50V 68P	1	
C1036		ECUX1H471KBV	C.CAPACITOR CH 50V 470P	1	
C1037		ECUX1H822KBV	C.CAPACITOR CH 50V 8200P	1	
C1061		ECUX1H472KBV	C.CAPACITOR CH 50V 4700P	1	
C1062		ECEV1EA470	E.CAPACITOR CH 25V 47U	1	
C1063		ECUX1H472KBV	C.CAPACITOR CH 50V 4700P	1	
C1064		ECEV1EA470	E.CAPACITOR CH 25V 47U	1	
C1065,66		ECUM1C105ZFM	C.CAPACITOR CH 16V 1U	2	
C1067		ECEV1EA100	E.CAPACITOR CH 25V 10U	1	
C1068		ECST1CC106Z	T.CAPACITOR 16V 10U	1	
C1069.70		ECUM1C475ZFM	C.CAPACITOR CH 16V 4.7U	2	
C1071		ECUM1C225ZFM	C.CAPACITOR CH 16V 2.2U	1	
C1106		ECEV1CA100	E.CAPACITOR 16V 10U	1	
C1107		ECEV0JA220	E.CAPACITOR 6.3V 22U	1	
C1108		ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	
C1109		ECEV0JA220	E.CAPACITOR 6.3V 22U	1	
C1110		ECST1CY335Z	T.CAPACITOR 16V 3.3U	1	
C1111		ECUM1C105ZFM	C.CAPACITOR CH 16V 1U	1	
C2101		ECUM1E104KBM	C.CAPACITOR CH 25V 0.1U	1	
C2102-04		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	3	
C2105		ECEV1CA100	E.CAPACITOR 16V 10U	1	
C2106		ECUM1H223KBM	C.CAPACITOR CH 50V 0.022U	1	
C2107		ECUX1C473ZFV	C.CAPACITOR CH 16V 0.047U	1	
C2108		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C2109-12		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	4	
C2113		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C2114		ECUM1H472KBN	C.CAPACITOR CH 50V 4700P	1	
C2115,16		ECEV1HA010	E.CAPACITOR 50V 1U	2	
C2117		ECUX1H272KBV	C.CAPACITOR CH 50V 2700P	1	
C2118		ECUX1H221KBV	C.CAPACITOR CH 50V 220P	1	
C2119-21		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	3	
C2122		ECUM1H333ZFV	C.CAPACITOR CH 50V 0.033U	1	
C2123-25		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	3	
C2126		ECEV1HAR47	E.CAPACITOR CH 25V 0.47U	1	
C2127		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C2128		ECUM1H333ZFV	C.CAPACITOR CH 50V 0.033U	1	
C2129		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C2130		ECEV05A470	E.CAPACITOR 4V 47U	1	
C2131		ECUX1H121JCV	C.CAPACITOR CH 50V 120P	1	
C2132		ECUM1H102JCN	C.CAPACITOR CH 50V 1000P	1	
C2133		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C2134		ECEV1AA330	E.CAPACITOR 10V 330U	1	
C2135		ECEV0GA470	E.CAPACITOR CH 4V 47U	1	
C2136		ECUM1C105ZFN	C.CAPACITOR 16V 1U	1	
C2141		ECUM1C105ZFN	C.CAPACITOR 16V 1U	1	
C2141		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C2142		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3002		ECEV0GA470	E.CAPACITOR CH 4V 47U	1	
C3004		ECEV0GA471	E.CAPACITOR CH 4V 470U	1	
C3005		ECUX1H150JCV	C.CAPACITOR CH 50V 15P	1	
C3013		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C3014		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C3015		ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C3016		ECUX1H471JCV	C.CAPACITOR CH 50V 470P	1	
C3017		ECUX1H560JCV	C.CAPACITOR CH 50V 56P	1	
C3018		ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	
C3019		ECUX1H120JCV	C.CAPACITOR CH 50V 12P	1	
C3021,22		ECUX1H220JCV	C.CAPACITOR CH 50V 22P	2	
C3023		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C3024		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C3025,26		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	2	
C3028		ECUM1C105ZFN	C.CAPACITOR 16V 1U	1	
C3029		ECUX1H390JCV	C.CAPACITOR CH 50V 39P	1	
C3030		ECUX1H221JCV	C.CAPACITOR CH 50V 220P	1	
C3031		ECUX1H680JCV	C.CAPACITOR CH 50V 68P	1	
C3042		ECUX1H470JCV	C.CAPACITOR CH 50V 47P	1	
C3043		ECUX1H220JCV	C.CAPACITOR CH 50V 22P	1	
C3055		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3059		ECUX1H472KBV	C.CAPACITOR CH 50V 4700P	1	
C3060		ECEV1CAN4R7	E.CAPACITOR CH 16V 4.7U	1	
C3061		ECUX1H120JCV	C.CAPACITOR CH 50V 12P	1	
C3062		ECUX1H390JCV	C.CAPACITOR CH 50V 39P	1	
C3065		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C3072		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C3075		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C3076		ECEV1EA4R7	E.CAPACITOR CH 25V 4.7U	1	
C3080		ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	
C3081		ECUX1H560JCV	C.CAPACITOR CH 50V 56P	1	
C3087		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3091		ECST1AD336Z	T.CAPACITOR 10V 33U	1	
C3092		ECST1CD226Z	T.CAPACITOR 16V 22U	1	
C3093		ECST0JC336Z	T.CAPACITOR 6.3V 33U	1	
C3822		ECWU1C823JA	P.CAPACITOR CH 16V	1	
C3823		ECST1AX106Z	T.CAPACITOR 10V 10U	1	
C3824,25		ECUX1H820JCV	C.CAPACITOR CH 50V 82P	2	
C4001		ECEV1HA2R2	E.CAPACITOR 50V 2.2U	1	
C4002		ECUM1H123KBN	C.CAPACITOR CH 50V 0.012U	1	
C4004		ECUX1H122KBV	C.CAPACITOR CH 50V 1200P	1	
C4005		ECUX1C153KBV	C.CAPACITOR CH 16V 0.015U	1	
C4006		ECUX1H151JCV	C.CAPACITOR CH 50V 150P	1	
C4007		ECEV1CA100	E.CAPACITOR 16V 10U	1	
C4008		ECST1CY225Z	T.CAPACITOR 16V 2.2U	1	
C4009		ECUX1H221JCV	C.CAPACITOR CH 50V 220P	1	
C4010		ECEV05A470	E.CAPACITOR 4V 47U	1	
C4011		ECUM1C105ZFM	C.CAPACITOR CH 16V 1U	1	
C4012		ECEV1HA2R2	E.CAPACITOR 50V 2.2U	1	
C4013		ECEV0JA220	E.CAPACITOR 6.3V 22U	1	
C4014		ECEV0JAN220	E.CAPACITOR 6.3V 22U	1	
C4015		ECEV1CA100	E.CAPACITOR 16V 10U	1	
C4016		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C4017		ECEV1CA100	E.CAPACITOR 16V 10U	1	
C4018		ECUX1H391JCV	C.CAPACITOR CH 50V 390P	1	
C4019		ECUM2A682JCM	C.CAPACITOR CH 10V 6800P	1	
C4020		ECUX1E123KBV	C.CAPACITOR CH 25V 0.012U	1	
C4021		ECUM1E223KBN	C.CAPACITOR CH 25V 0.023U	1	
C4022		ECST1AX106Z	T.CAPACITOR 10V 10U	1	
C4023		ECEV0GA101	E.CAPACITOR 4V 100U	1	
C4024		ECUM1C105ZFM	C.CAPACITOR CH 16V 1U	1	
C4026		ECEV1CA100	E.CAPACITOR 16V 10U	1	
C4027		ECUX1H682KBV	C.CAPACITOR CH 50V 6800P	1	
C4028		ECEV05A470	E.CAPACITOR 4V 47U	1	
C4029,30		ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	2	
C4031		ECUX1H222KBV	C.CAPACITOR CH 50V 2200P	1	
C4032		ECUX1H562KBV	C.CAPACITOR CH 50V 5600P	1	
C4033		ECEV1HA2R2	E.CAPACITOR 50V 2.2U	1	
C4056		ECEV05A470	E.CAPACITOR 4V 47U	1	
C5001		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C5002,03		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	2	
C5004-11		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	8	
C5012-15		ECUX1H220JCV	C.CAPACITOR CH 50V 22P	4	
C5016-23		ECUM1C105ZFN	C.CAPACITOR 16V 1U	8	
C5024		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C5025,26		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	2	
C5028		ECUM1E273KBN	C.CAPACITOR CH 25V 0.027U	1	
C5031		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C5034		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C5035		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C5052		ECUX1H121JCV	C.CAPACITOR CH 50V 120P	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C5053		ECUX1H151JCV	C.CAPACITOR CH 50V 150P	1	
C5054		ECUX1H390JCV	C.CAPACITOR CH 50V 39P	1	
C5055,56		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	2	
C5066		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C5067		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C5072		ECUX1E123KBV	C.CAPACITOR CH 25V 0.012U	1	
C6001		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C6002		ECUM1C105ZFN	C.CAPACITOR 16V 1U	1	
C6003-05		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	3	
C6006-08		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	3	
C6009		ECEV1VA220	E.CAPACITOR CH 35V 22U	1	
C6010,11		ECUM1C105ZFN	C.CAPACITOR 16V 1U	2	
C6012		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C6013		ECEV05A470	E.CAPACITOR 4V 47U	1	
C6014		ECUM1C105ZFN	C.CAPACITOR 16V 1U	1	
C6015		ECUX1H330JCV	C.CAPACITOR CH 50V 33P	1	
C6016		ECUX1H120JCV	C.CAPACITOR CH 50V 12P	1	
C6018		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C6019		ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	1	
C6020,21		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	2	
C6022,23		ECUX1H120JCV	C.CAPACITOR CH 50V 12P	2	
C6024		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6025		ECEV05A470	E.CAPACITOR 4V 47U	1	
C6026		ECEV05A330	E.CAPACITOR 4V 33U	1	
C6027		ECEV1VA220	E.CAPACITOR CH 35V 22U	1	
C6028		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6029,30		ECUX1H221JCV	C.CAPACITOR CH 50V 220P	2	
C6031		ECUM1C105ZFN	C.CAPACITOR 16V 1U	1	
C6032		ECEV05A470	E.CAPACITOR 4V 47U	1	
C6033		ECUM1C105ZFN	C.CAPACITOR 16V 1U	1	
C6034		ECUX1H120JCV	C.CAPACITOR CH 50V 12P	1	
C6035		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6041		ECST1AX106Z	T.CAPACITOR 10V 10U	1	
C6042-44		ECUM1C105ZFN	C.CAPACITOR 16V 1U	3	
C6201		ECUM1C105ZFM	C.CAPACITOR CH 16V 1U	1	
C6202		ECUX1H472KBV	C.CAPACITOR CH 50V 4700P	1	
C6203		ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	1	
C6204		ECUX1H222KBV	C.CAPACITOR CH 50V 2200P	1	
C6206,07		ECEV0JA220	E.CAPACITOR 6.3V 22U	2	
C6208,09		ECUM1C105KBP	C.CAPACITOR CH 16V 1U	2	
C6210		ECUX1H561KBV	C.CAPACITOR CH 50V 560P	1	
C6211,12		ECEV1CA100	E.CAPACITOR 16V 10U	2	
C6213		ECUX1E223ZFV	C.CAPACITOR CH 25V 0.022U	1	
C6214		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C6215		ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	
C6216		ECUM1E104KBM	C.CAPACITOR CH 25V 0.1U	1	
C6217		ECEV1CA100	E.CAPACITOR 16V 10U	1	
C6218		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6219		ECUM1H273KBM	C.CAPACITOR CH 50V 0.027U	1	
C8001		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C8002		ECUX1H060CCV	C.CAPACITOR CH 50V 6P	1	
C8003		ECUX1H100CCV	C.CAPACITOR CH 50V 10P	1	
C8004		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C8005		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C8015		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C8016		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C8017		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C8040		ECUX1H680JCV	C.CAPACITOR CH 50V 68P	1	
C8048		ECUX1H332KBV	C.CAPACITOR CH 50V 3300P	1	
C8049		ECEV1EA4R7	E.CAPACITOR CH 25V 4.7U	1	
C8062,63		ECUX1H181JCV	C.CAPACITOR CH 50V 180P	2	
C8065		ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	
C8066		ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	1	
C8071		ECUX1H182KBV	C.CAPACITOR CH 50V 1800P	1	
C8072		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C8074		ECUM1C105ZFN	C.CAPACITOR 16V 1U	1	
C8076		ECUM1C105ZFN	C.CAPACITOR 16V 1U	1	
C8081		ECUX1H471JCV	C.CAPACITOR CH 50V 470P	1	
C8082		ECUX1H331JCV	C.CAPACITOR CH 50V 330P	1	
C8101		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C8102		ECUX1H330JCV	C.CAPACITOR CH 50V 33P	1	
C8103		ECUX1H120JCV	C.CAPACITOR CH 50V 12P	1	
C8105		ECUX1H470JCV	C.CAPACITOR CH 50V 47P	1	
C8107		ECUX1H820JCV	C.CAPACITOR CH 50V 82P	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
			DIODES		
D1002		MA736	DIODE	1	
D1004		MA736	DIODE	1	
D1005		SB05-05CP	DIODE	1	
D1006,07		MA142K	DIODE	2	
D1008		MA728	DIODE	1	
D1010,11		MA3200-M	DIODE	2	
D1012		MA143	DIODE	1	
D1061,62		SB05-05CP	DIODE	2	
D1063,64		MA728	DIODE	2	
D1107		MA141WA	DIODE	1	
D2101		MA143	DIODE	1	
D2102		MA3100	DIODE	1	
D3004		MA143	DIODE	1	
D4001		MA142K	DIODE	1	
D4002		MA132K	DIODE	1	
D4008		MA157	DIODE	1	
D5001		MA159	DIODE	1	
D5002		MA132WA	DIODE	1	
D5004		MA132WA	DIODE	1	
D5005		MA133	DIODE	1	
D5006-09		MA728	DIODE	4	
D6001		MA143	DIODE	1	
D6002		MA132WK	DIODE	1	
D6004-07		MA141WA	DIODE	4	
D6008		MA121	DIODE	1	
D6009,10		MA745	DIODE	2	
D6012		MA132WK	DIODE	1	
D6013		MA132WA	DIODE	1	
D6014,15		MA141WA	DIODE	2	
D6016,17		MA141K	DIODE	2	
D6018		MA3062	DIODE	1	
D6019		MA3200	DIODE	1	
D6020		MA141K	DIODE	1	
D6023		MA141K	DIODE	1	
D6024		BR1102W	DIODE	1	
D6025		MA141K	DIODE	1	
D6026		MA745	DIODE	1	
D6029		MA141K	DIODE	1	
D8001		MA132WK	DIODE	1	
			CONNECTORS		
FP2101		VJS2959D017	CONNECTOR (FEMALE)	1	
FP2102		VJS2848B014	CONNECTOR (FEMALE)	1	
FP3001		VJS2848D011	CONNECTOR (FEMALE)	1	
FP4001		VJS2959B007	CONNECTOR (FEMALE)	1	
FP5001		VJS2958D013	CONNECTOR (FEMALE)	1	
FP6001		VJS2960A012	CONNECTOR (FEMALE)	1	
			INTEGRATED CIRCUITS		
IC1001		BA9703K	IC	1	
IC1102		LM393DB	IC	1	
IC2101		AN3890FBS	IC	1	
IC2102		UN224	TRANSISTOR	1	
IC2103		AN3841SR	IC	1	
IC2104		NJM2902M	IC	1	
IC3001		VEFH25D	IC	1	
IC3002		TL8809F	IC	1	
IC3804		UPD74HC02G	IC	1	
IC4001		BA7757BK	IC	1	
IC5001		AN3351FHP	IC	1	
IC6001		BA6219BFPY	IC	1	
IC6002		UPD6456GT623	IC	1	
IC6003		S3500B3	IC	1	
IC6004		MN6755243V4N	IC	1	
IC6005,06		UPD4071BG	IC	2	
IC6007		TC4S66F	IC	1	
IC6008		UPD4071BG	IC	1	
IC6009		MN12821R	IC	1	(R)
IC6010		S81350HGKD	IC	1	
IC6011		TC7S08F	IC	1	
IC8001		VEFH26B	IC	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
IC8002		TL8833F	IC	1	
			COILS		
L1001		ELC6UB4R7M	COIL 4.7UH	1	
L1002		ELL04T034R	COIL	1	
L1003		ELC6UB4R7M	COIL 4.7UH	1	
L1004		VLQ0319K100	COIL 100UH	1	
L1007		ELL04T030R	COIL	1	
L1008		ELC6UB4R7M	COIL 4.7UH	1	
L1009		VLQ0319K100	COIL 100UH	1	
L1010,11		VLQ0319K101	COIL 100UH	2	
L1061,62		ELL04T031R	COIL	2	
L1063,64		VLQ0319K330	COIL 39UH	2	
L1102-04		VLQ0319K100	COIL 10UH	3	
L3001,02		VLQ0319K101	COIL 100UH	2	
L3003		VLQ0163J820	COIL 82UH	1	
L3004		VLQ0426J150	COIL 15UH	1	
L3005		ELJFA121JB	COIL 120UH	1	
L3006		VLQ0426J3R9	COIL 3.9UH	1	
L3007		VLQ0426J150	COIL 15UH	1	
L3009		VLQ0319F150	COIL 15UH	1	
L3010		VLQ0426J470	COIL 47UH	1	
L3011		VLQ0426J120	COIL 12UH	1	
L3015		VLQ0426J560	COIL 56UH	1	
L3018		VLQ0319F150	COIL 15UH	1	
L3019		VLQ0319K101	COIL 100UH	1	
L3021		VLQ0426J330	COIL 33UH	1	
L3024		ELJPA101KB	COIL 100UH	1	
L3025		VLQ0464	COIL	1	
L3802		ELJFA101KB	COIL 100UH	1	
L4001		VLQ0423J153	COIL 15MH	1	
L4002		VLQ0319K470	COIL 47UH	1	
L5001		VLQ0319F150	COIL 15UH	1	
L5003		VLQ0319F150	COIL 15UH	1	
L5004		VLQ0319K101	COIL 100UH	1	
L5005		VLQ0163J120	COIL 12UH	1	
L5006		VLQ0319F150	COIL 15UH	1	
L6001		ELJSC101KF	COIL 100UH	1	
L6002		VLQ0426J330	COIL 33UH	1	
L6003		VLQ0319K100	COIL 10UH	1	
L6004		VLQ0463	COIL	1	
L6005		ELJSC330KB	COIL 33UH	1	
L8001		VLQ0426J270	COIL 27UH	1	
L8002,03		VLQ0426J100	COIL 10UH	2	
L8004		VLQ0319F150	COIL 15UH	1	
L8006		VLQ0426J330	COIL 33UH	1	
L8007		VLQ0319F150	COIL 15UH	1	
L8012		VLQ0319F150	COIL 15UH	1	
L8013		VLQ0426J101	COIL 100UH	1	
L8014		ELJFA151KB	COIL 150UH	1	
L8016		VLQ0133K471	COIL 470UH	1	
			CONNECTORS		
P1001		VJP3327D002	CONNECTOR (MALE)	1	
P3001		VJS3172B005	CONNECTOR (FEMALE)	1	
P3002		VJP3172D009	CONNECTOR (MALE)	1	
P4001		VJP3172D003	CONNECTOR (MALE)	1	
P4001		VJS3172B003	CONNECTOR (FEMALE)	1	
P4002		VJP3172D002	CONNECTOR (MALE)	1	
P4301		VJS3172B003	CONNECTOR (FEMALE)	1	
P6001		VJP3172D004	CONNECTOR (MALE)	1	
P6004,05		VJP3172D002	CONNECTOR (MALE)	2	
P6006		VJP3172D003	CONNECTOR (MALE)	1	
P6007,08		VJP3172D006	CONNECTOR (MALE)	2	
P6009		VJP3172D008	CONNECTOR (MALE)	1	
			TRANSISTORS		
Q1001		2SB1202-S	TRANSISTOR	1	
01002		2SB1073	TRANSISTOR	1	
Q1003		2SB1202-S	TRANSISTOR	1	
Q1004		2SD1624-S	TRANSISTOR	1	
Q1005		2SB1073	TRANSISTOR	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
Q1006		2SB970X	TRANSISTOR	1	
Q1061,62		2SB1073	TRANSISTOR	2	
Q2101		2SD1819	TRANSISTOR	1	
Q3001		2SB970X	TRANSISTOR	1	
Q3003		2SC4627	TRANSISTOR	1	
Q3004		2SD2216	TRANSISTOR	1	
Q3008,09		2SC4627	TRANSISTOR	2	
Q3011		2SB1462	TRANSISTOR	1	
Q3012		2SD2216	TRANSISTOR	1	
Q3014		2SB1462	TRANSISTOR	1	
Q3016		2SD1819	TRANSISTOR	1	
Q3018		2SB1462	TRANSISTOR	1	
Q3025		2SD1819	TRANSISTOR	1	
Q3026,27		2SD2216	TRANSISTOR	2	
Q3805		2SC3938	TRANSISTOR	1	
Q3806		2SB1218	TRANSISTOR	1	
Q3807		2SD1819	TRANSISTOR	1	
Q3808		2SB970X	TRANSISTOR	1	
Q4001		2SB1220	TRANSISTOR	1	
Q4002,03		2SD1819A	TRANSISTOR	2	
Q4004		2SD602-R	TRANSISTOR	1	(R)
Q4005		2SB970X-R	TRANSISTOR	1	
Q4006		2SD2216	TRANSISTOR	1	
Q4007		2SD1328	TRANSISTOR CHIP	1	
Q4008		2SB1462	TRANSISTOR	1	
Q4009		2SB1218	TRANSISTOR	1	
Q4010.11		2SD1328	TRANSISTOR CHIP	2	
Q5001,02		XN4504	TRANSISTOR-TRANSISTOR	2	
Q5003		2SB970X	TRANSISTOR	1	
Q5004,05		2SA812	TRANSISTOR	2	
Q5008,09		2SD1328	TRANSISTOR CHIP	2	
Q6002		2SD1820-R	TRANSISTOR	1	
Q6003		XN1213	TWIN TRANSISTOR	1	
Q6004		2SB970X	TRANSISTOR	1	
Q6005		2SD1819	TRANSISTOR	1	
Q6006		2SD2216	TRANSISTOR	1	
Q6007		2SB1218	TRANSISTOR	1	
Q6008		2SD1819	TRANSISTOR	1	
Q6009		2SD1823	TRANSISTOR	1	
Q6010		2SD1328	TRANSISTOR CHIP	1	
Q6012		2SD1819	TRANSISTOR	1	
Q8001,02		2SD1819	TRANSISTOR	2	
Q8009		2SB1462	TRANSISTOR	1	
Q8013		2SB1462	TRANSISTOR	1	
Q8014		2SD1819	TRANSISTOR	1	
			COMBINATION PARTS		
QR1002		UN5214	TRANSISTOR-RESISTOR	1	
QR1006		XN1501	TWIN TRANSISTOR	1	
QR1061		UN5115	TRANSISTOR-RESISTOR	1	
QR3001		UN9212	TRANSISTOR-RESISTOR	1	
QR3009		UN9212	TRANSISTOR-RESISTOR	1	
QR3016		UN9212	TRANSISTOR-RESISTOR	1	
QR3017		UN9213	TRANSISTOR-RESISTOR	1	
QR3018		UN5212	TRANSISTOR-RESISTOR	1	
QR3023		XN1501	TWIN TRANSISTOR	1	
QR3804		UN5217	TRANSISTOR-RESISTOR	1	
QR3805		UN5116	TRANSISTOR-RESISTOR	1	
QR3806		UN5212	TRANSISTOR-RESISTOR	1	
QR3807		UN5213	TRANSISTOR	1	
QR4001		XN4312	TRANSISTOR-TRANSISTOR	1	
QR4002		UN5213	TRANSISTOR	1	
QR4003		UN5210	TRANSISTOR	1	
QR4005		UN511F	TRANSISTOR-RESISTOR	1	
QR4006		UN5213	TRANSISTOR	1	
QR4007		UN5210	TRANSISTOR	1	
QR5001		UN9213	TRANSISTOR-RESISTOR	1	
QR5002		UN5212	TRANSISTOR-RESISTOR	1	
QR5004		XP1213	TWIN TRANSISTOR	1	
QR6001		UN9213	TRANSISTOR-RESISTOR	1	
QR6002		UN2130X	TRANSISTOR-RESISTOR	1	
QR6003		UN9212	TRANSISTOR-RESISTOR	1	
QR6004		XN4130X	TRANSISTOR-RESISTOR	1	
QR6005		UN5112	TRANSISTOR-RESISTOR	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
QR6007		UN9213	TRANSISTOR-RESISTOR	1	
QR6008		UN5213	TRANSISTOR	1	
QR6010		UN5112	TRANSISTOR-RESISTOR	1	
QR6011,12		UN9112	TRANSISTOR-RESISTOR	2	
QR6013		UN521E	TRANSISTOR-RESISTOR	1	
QR6014		UN5213	TRANSISTOR	1	
QR6015		UN5211	TRANSISTOR-RESISTOR	1	
QR6016		UN5113	TRANSISTOR-RESISTOR	1	
QR6017		UN9213	TRANSISTOR-RESISTOR	1	
QR6018		UN5211	TRANSISTOR-RESISTOR	1	
QR8101		UN9212	TRANSISTOR-RESISTOR	1	
			RESISTORS		
R1001		ERJ6GEYG682	M.REISITOR CH 1/10W 6.8K	1	
R1002		ERJ6GEYG202	M.RESISTOR CH 1/10W 2K	1	
R1003		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R1004		ERJ3GEYJ331	M.RESISTOR CH 1/16W 330	1	
R1005		ERJ6GEYG562	M.RESISTOR CH 1/10W 5.6K	1	
R1006		ERJ6GEYG272	M.RESISTOR CH 1/10W 2.7K	1	
R1007		ERJ8GEYJ101	M.RESISTOR CH 1/8W 100	1	
R1008		ERJ6GEYG103	M.RESISTOR CH 1/10W 10K	1	
R1009		ERJ6GEYG152	M.RESISTOR CH 1/10W 1.5K	1	
R1012		ERJ3GEYG163	M.RESISTOR CH 1/16W 16K	1	
R1013		ERJ3GEYG393	M.RESISTOR CH 1/16W 39K	1	
R1014,15		ERJ6GEYG182	M.RESISTOR CH 1/10W 1.8K	2	
R1016		VRE0034E153	M.RESISTOR CH 1/10W 15K	1	
R1017		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R1018		ERJ3GEYJ151	M.RESISTOR CH 1/16W 150	1	
R1019		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R1020		ERJ3GEYJ151	M.RESISTOR CH 1/16W 150	1	
R1021		ERJ3GEYJ680	M.RESISTOR CH 1/16W 68	1	
R1022		ERJ3GEYJ560	M.RESISTOR CH 1/16W 56	1	
R1023		ERJ3GEYJ392	M.RESISTOR CH 1/16W 3.9K	1	
R1024		ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R1025,26		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	2	
R1027		ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	1	
R1029		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R1030		ERJ3GEYJ183	M.RESISTOR CH 1/16W 18K	1	
R1031		ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	1	
R1032,33		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	2	
R1034		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R1035		ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R1036		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R1061		ERJ6GEYJ391	M.RESISTOR CH 1/10W 390	1	
R1062		ERJ6GEYJ681	M.RESISTOR CH 1/10W 680	1	
R1063		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R1064,65		ERJ3GEYJ122	M.RESISTOR CH 1/16W 1.2K	2	
R1105-07		ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	3	
R1108		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R2101		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R2102		ERJ8GEYJR33	M.RESISTOR CH 1/8W 0.33	1	
R2103		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R2104		ERJ3GEYJ563	M.RESISTOR CH 1/16W 56K	1	
R2105		ERJ3GEYJ823	M.RESISTOR CH 1/16W 82K	1	
R2106		ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	1	
R2107		ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	1	
R2108		ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	1	
R2109		ERJ3GEYJ563	M.RESISTOR CH 1/16W 56K	1	
R2110		ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	1	
R2111,12		ERJ3GEYJ563	M.RESISTOR CH 1/16W 56K	2	
R2113		ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	1	
R2114		ERJ3GEYJ154	M.RESISTOR CH 1/16W 150K	1	
R2115		ERJ8GEYJR47	M.RESISTOR CH 1/8W 0.47	1	
R2116,17		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	2	
R2118		ERJ3GEYJ332	M.RESISTOR CH 1/16W 3.3K	1	
R2119		ERJ3GEYJ563	M.RESISTOR CH 1/16W 56K	1	
R2121		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R2122		ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	1	
R2123,24		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	2	
R2125		ERJ3GEYJ820	M.RESISTOR CH 1/16W 82	1	
R2126		ERJ3GEYJ151	M.RESISTOR CH 1/16W 150	1	
R2127		ERJ8GEYJ5R6	M.RESISTOR CH 1/8W 5.6	1	
R2130		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R3001		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R3002		ERJ3GEYJ152	M.RESISTOR CH 1/16W 1.5K	1	
R3010		ERJ3GEYJ152	M.RESISTOR CH 1/16W 1.5K	1	
R3011		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R3012		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R3013		ERJ3GEYJ392	M.RESISTOR CH 1/16W 3.9K	1	
R3014,15		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	2	
R3016		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R3017		ERJ3GEYJ331	M.RESISTOR CH 1/16W 330	1	
R3018		ERJ3GEYJ122	M.RESISTOR CH 1/16W 1.2K	1	
R3019		ERJ3GEYJ563	M.RESISTOR CH 1/16W 56K	1	
R3021		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R3022		ERJ3GEYJ182	M.RESISTOR CH 1/16W 1.8K	1	
R3023		ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	1	
R3024		ERJ3GEYJ821	M.RESISTOR CH 1/16W 820	1	
R3025		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R3026		ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	1	
R3028		ERJ3GEYJ273	M.RESISTOR CH 1/16W 27K	1	
R3041		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R3042		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R3043		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R3046		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R3047		ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	1	
R3049		ERJ3GEYJ561	M.RESISTOR CH 1/16W 560	1	
R3054		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R3055		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R3059		ERJ3GEYJ273	M.RESISTOR CH 1/16W 27K	1	
R3060		ERJ3GEYJ680	M.RESISTOR CH 1/16W 68	1	
R3068,69		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	2	
R3070		ERJ3GEYJ561	M.RESISTOR CH 1/16W 560	1	
R3071		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R3072		ERJ3GEYJ561	M.RESISTOR CH 1/16W 560	1	
R3073		ERJ3GEYJ152	M.RESISTOR CH 1/16W 1.5K	1	
R3074,75		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	2	
R3078		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R3079		ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	1	
R3080		ERJ3GEYJ152	M.RESISTOR CH 1/16W 1.5K	1	
R3081		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R3082		ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	1	
R3087		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R3090		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R3091		ERJ3GEYJ332	M.RESISTOR CH 1/16W 3.3K	1	
R3092		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R3094		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R3098		ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	1	
R3103,04		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	2	
R3107		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R3109		ERJ3GEYJ471	M.RESISTOR CH 1/16W 470	1	
R3112		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R3113		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R3115		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R3117,18		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	2	
R3119		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R3121,22		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	2	
R3123		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R3124		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R3127		ERJ3GEYJ183	M.RESISTOR CH 1/16W 18K	1	
R3128		ERJ3GEYJ474	M.RESISTOR CH 1/16W 470K	1	
R3135		ERJ3GEYJ392	M.RESISTOR CH 1/16W 3.9K	1	
R3136		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R3137		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R3139		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R3143,44		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	2	
R3147		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R3226		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R3229		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R3232		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R3808		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R3826,27		ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	2	
R3828		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R3829		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R3830		ERJ3GEYJ681	M.RESISTOR CH 1/16W 680	1	
R3831		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R3832,33		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	2	
R3834		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R3835		ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R3836		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R3838,39		ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	2	
R4001		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R4002		ERJ3GEYJ153	M.RESISTOR CH 1/16W 15K	1	
R4003		ERJ3GEYJ100	M.RESISTOR CH 1/16W 10	1	
R4004		ERJ3GEYJ154	M.RESISTOR CH 1/16W 150K	1	
R4005		ERJ3GEYJ331	M.RESISTOR CH 1/16W 330	1	
R4007		ERJ3GEYJ121	M.RESISTOR CH 1/16W 120	1	
R4008		ERJ3GEYJ334	M.RESISTOR CH 1/16W 330K	1	
R4009		ERJ3GEYJ562	M.RESISTOR CH 1/16W 5.6K	1	
R4010		ERJ3GEYJ563	M.RESISTOR CH 1/16W 56K	1	
R4011		ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	1	
R4012		ERJ3GEYJ123	M.RESISTOR CH 1/16W 12K	1	
R4013		ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R4014		ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R4015		ERJ3GEYJ393	M.RESISTOR CH 1/16W 39K	1	
R4016,17		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	2	
R4018		ERJ3GEYJ152	M.RESISTOR CH 1/16W 1.5K	1	
R4020		ERJ3GEYJ390	M.RESISTOR CH 1/16W 39	1	
R4021		ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	1	
R4022		ERJ3GEYJ562	M.RESISTOR CH 1/16W 5.6K	1	
R4023		ERJ3GEYJ681	M.RESISTOR CH 1/16W 680	1	
R4024		ERJ3GEYJ392	M.RESISTOR CH 1/16W 3.9K	1	
R4025		ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R4027		ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	1	
R4028		ERJ3GEYJ224	M.RESISTOR CH 1/16W 220K	1	
R4029		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R4030,31		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	2	
R4032		ERJ3GEYJ562	M.RESISTOR CH 1/16W 5.6K	1	
R4033		ERJ3GEYJ331	M.RESISTOR CH 1/16W 330	1	
R4034		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R4035		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R4036		ERJ3GEYJ561	M.RESISTOR CH 1/16W 560	1	
R4038		ERJ8GEYJ181	M.RESISTOR CH 1/8W 180	1	
R4039		ERJ6GEYJ820	M.RESISTOR CH 1/10W 82	1	
R4040		ERJ3GEYJ153	M.RESISTOR CH 1/16W 15K	1	
R4041,42		ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	2	
R4081,82		ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	2	
R4085		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R4087		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R4093		ERJ3GEYJ153	M.RESISTOR CH 1/16W 15K	1	
R4095		ERJ3GEYJ563	M.RESISTOR CH 1/16W 56K	1	
R4096		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R4508		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R4530		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R5001		ERJ3GEYJ332	M.RESISTOR CH 1/16W 3.3K	1	
R5002		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R5003		ERJ3GEYJ822	M.RESISTOR CH 1/16W 8.2K	1	
R5004-07		ERJ3GEYJ471	M.RESISTOR CH 1/16W 470	4	
R5008-11		ERJ3GEYJ821	M.RESISTOR CH 1/16W 820	4	
R5012		ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	1	
R5013		ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	1	
R5024		ERJ3GEYJ4R7	M.RESISTOR CH 1/16W 4.7	1	
R5025		ERJ3GEYJ391	M.RESISTOR CH 1/16W 390	1	
R5026		ERJ3GEYJ181	M.RESISTOR CH 1/16W 180	1	
R5027		ERJ3GEYJ822	M.RESISTOR CH 1/16W 8.2K	1	
R5028		ERJ3GEYJ183	M.RESISTOR CH 1/16W 18K	1	
R5029		ERJ3GEYJ100	M.RESISTOR CH 1/16W 10	1	
R5032		ERJ3GEYJ184	M.RESISTOR CH 1/16W 180K	1	
R5033,34		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	2	
R5035		ERJ3GEYJ391	M.RESISTOR CH 1/16W 390	1	
R5036		ERJ3GEYJ332	M.RESISTOR CH 1/16W 3.3K	1	
R5038		ERJ3GEYJ332	M.RESISTOR CH 1/16W 3.3K	1	
R5039		ERJ3GEYJ183	M.RESISTOR CH 1/16W 18K	1	
R5040-42		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	3	
R5043-45		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	3	
R5052		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R5067-70		ERJ3GEYJ394	M.RESISTOR CH 1/16W 390K	4	
R5074		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R6001.02		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	2	
R6003,04		ERJ3GEYJ392	M.RESISTOR CH 1/16W 3.9K	2	
R6005		ERJ3GEYJ152	M.RESISTOR CH 1/16W 1.5K	1	
R6006,07		ERJ3GEYJ184	M.RESISTOR CH 1/16W 180K	2	
R6008		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R6009		ERJ3GEYJ393	M.RESISTOR CH 1/16W 39K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R6014		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R6015		VRE0067G473	M.RESISTOR 47K	1	
R6016		VRE0067G153	M.RESISTOR	1	
R6017-20		ERJ8GEYJ101	M.RESISTOR CH 1/8W 100	4	
R6021		ERJ8GEYJ680	M.RESISTOR CH 1/8W 68	1	
R6022		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R6023		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R6024		ERJ3GEYJ394	M.RESISTOR CH 1/16W 390K	1	
R6025,26		ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	2	
R6027		ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	1	
R6028-30		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	3	
R6031		ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R6032-36		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	5	
R6037		ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	1	
R6038-42		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	5	
R6043		ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R6044		ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	1	
R6045		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R6046-49		ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	4	
R6050		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R6051-53		ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	3	
R6054-62		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	9	
R6063		ERJ3GEYJ153	M.RESISTOR CH 1/16W 15K	1	
R6065,66		ERJ3GEYJ184	M.RESISTOR CH 1/16W 180K	2	
R6067,68		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	2	
R6069		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R6070		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R6071		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R6072-78		ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	7	
R6079		ERJ8GEYJ100	M.RESISTOR CH 1/8W 10	1	
R6080,81		ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	2	
R6082		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R6083,84		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	2	
R6085,86		ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	2	
R6087		ERJ8GEYJ221	M.RESISTOR CH 1/8W 220	1	
R6088,89		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	2	
R6090		ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	1	
R6091		ERJ8GEYJ391	M.RESISTOR CH 1/8W 390	1	
R6092		ERJ3GEYJ471	M.RESISTOR CH 1/16W 470	1	
R6093		ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R6095		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R6096		ERJ8GEYJ331	M.RESISTOR CH 1/8W 330	1	
R6097		ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	1	
R6098		ERJ3GEYJ682	M.RESISTOR CH 1/16W 6.8K	1	
R6099		ERJ3GEYJ182	M.RESISTOR CH 1/16W 1.8K	1	
R6100		ERJ3GEYJ330	M.RESISTOR CH 1/16W 33	1	
R6101		ERJ3GEYJ392	M.RESISTOR CH 1/16W 3.9K	1	
R6102		ERJ3GEYJ181	M.RESISTOR CH 1/16W 180	1	
R6102		ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	1	
R6103		ERJ3GEYJ183	M.RESISTOR CH 1/16W 18K	1	
R6104		ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	1	
R6105		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R6106,07		ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	2	
R6108		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R6109-12		ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	4	
R6115		ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	1	
R6121		ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	1	
R6122		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R6123		ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	1	
R6124		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R6125,26		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	2	
R6127		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R6128		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R6129		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R6201		ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R6202,03		ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	2	
R6204		ERJ3GEYJ181	M.RESISTOR CH 1/16W 180	1	
R6205-07		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	3	
R6208		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R6209		ERJ3GEYJ682	M.RESISTOR CH 1/16W 6.8K	1	
R6210,11		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	2	
R6212		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R6213		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R6215		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R6216		ERJ3GEYJ151	M.RESISTOR CH 1/16W 150	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R6217		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R8003		ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	1	
R8014,15		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	2	
R8016		ERJ3GEYJ182	M.RESISTOR CH 1/16W 1.8K	1	
R8017		ERJ3GEYJ681	M.RESISTOR CH 1/16W 680	1	
R8030		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R8032		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R8044		ERJ3GEYJ152	M.RESISTOR CH 1/16W 1.5K	1	
R8045		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R8054		ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	1	
R8055		ERJ3GEYJ124	M.RESISTOR CH 1/16W 120K	1	
R8056		ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R8057,58		ERJ3GEYJ474	M.RESISTOR CH 1/16W 470K	2	
R8062		ERJ3GEYJ152	M.RESISTOR CH 1/16W 1.5K	1	
R8064		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R8065		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R8066		ERJ3GEYJ392	M.RESISTOR CH 1/16W 3.9K	1	
R8067		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R8070		ERJ3GEYJ681	M.RESISTOR CH 1/16W 680	1	
R8071,72		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	2	
R8075		ERJ3GEYJ151	M.RESISTOR CH 1/16W 150	1	
R8076		ERJ3GEYJ183	M.RESISTOR CH 1/16W 18K	1	
R8090		ERJ3GEYJ681	M.RESISTOR CH 1/16W 680	1	
R8091		ERJ3GEYJ153	M.RESISTOR CH 1/16W 15K	1	
R8092		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R8093		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R8094		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R8095		ERJ3GEYJ331	M.RESISTOR CH 1/16W 330	1	
R8103		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R8111		ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	1	
			TRANSFORMERS		
T1001		ELL04T032R	TRANSFORMER	1	
T4001		EIQ6QB006	TRANSFORMER	1	
			VARIABLE RESISTORS		
VR1001		EVM7JSX30B52	V.RESISTOR 5.2K	1	
VR1002		EVM7JSX30B13	V.RESISTOR 1K	1	
VR1003		EVM7JSX30BE2	V.RESISTOR	1	
VR3001		EVM7JSX30B13	V.RESISTOR 1K	1	
VR3005		EVM7JSX30B13	V.RESISTOR 1K	1	
VR3008		EVM7JSX30B13	V.RESISTOR 1K	1	
VR3802		EVM7JSX30B14	V.RESISTOR 10K	1	
VR4001		EVM7JSX30B52	V.RESISTOR 5.2K	1	
VR4002		EVM7JSX30B54	V.RESISTOR 50K	1	
VR6201		EVM7JSX30B15	V.RESISTOR 100K	1	
VR8001		EVM7JSX30B23	V.RESISTOR 2K	1	
			CRYSTAL OSCILLATORS		
X6002		VSX0461	CRYSTAL OSCILLATOR	1	
X6003		VSX0439	CRYSTAL OSCILLATOR	1	
X8001		VSX0419	CRYSTAL OSCILLATOR	1	
			MISCELLANEOUS		
		VSC3639	POWER SHIELD COVER (A)	1	
		VSC3640	POWER SHIELD COVER (B)	1	
		VSC3630	H.A. SHIELD COVER (A)	1	
		VSC3631	H.A. SHIELD COVER (B)	1	
	■	VEP06817B	VTR OPERATION (A) C.B.A.		(NLA)
			DIODES		
D6501-06		MA165VT	DIODE	6	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
D6507		BR3668S	DIODE	1	
D6508-16		MA165VT	DIODE	9	
			CONNECTORS		
FP6501		VJS2326	CONNECTOR (FEMALE)	1	
			SWITCHES		
SW6501-07		EVQ21504K	SWITCH	7	
SW6508,09		EVQQSB04B	SWITCH	2	
SW6510		VST0098	SWITCH	1	
SW6512		EVQ21504K	SWITCH	1	
SW6513		EVQQSU04W	SWITCH	1	
SW6514,15		EVQQSB04B	SWITCH	2	
SW6516		EVQQFR02K	SWITCH	1	
SW6517		ESD100121AQ	SWITCH	1	
			MISCELLANEOUS		
		VWJ06C0040AA	JUMPER CONNECTOR	1	
		VWJ0610	FLEXIBLE	1	
	■	VEP03946B	AV JACK (A) C.B.A.		(NLA)
			CAPACITORS		
C1501		ECUM1C105ZFN	C.CAPACITOR 16V 1U	1	
			DIODES		
D1501-04		MA165VT	DIODE	4	
			CONNECTORS		
FP1501		VJS2134	CONNECTOR (FEMALE)	1	
			COILS		
L1501-03		VLQ0291	COIL	3	
			CONNECTORS		
P1501		VJP1244T	CONNECTOR (MALE) 4P	1	
			MISCELLANEOUS		
		VEJ1289	AV JACK PLATE	1	
	■	VEP03957B	AV JACK (B) C.B.A.		(NLA)
			CAPACITORS		
C1601		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C1602		ECEA1AKS220	E.CAPACITOR 10V 22U	1	
			DIODES		
D1601		MA3220	DIODE	1	
D1603		31DQ04FC7	DIODE	1	
D1604		MA151WA	DIODE	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
			COILS		
L1601,02		VLP0113	COIL	2	
			CONNECTORS		
P1001		VJS1229T	CONNECTOR (FEMALE)	1	
P1601		VJP3318A006	CONNECTOR (MALE)	1	
P1601		VJS3172B006	CONNECTOR (FEMALE)	1	
P1602		VJP1231T	CONNECTOR (MALE) 4P	1	
P1603		VJP1229T	CONNECTOR (MALE) 2P	1	
P1604		VJP1229R	CONNECTOR (MALE)	1	
P6008		VJS3172B006	CONNECTOR (FEMALE)	1	
PJ1605		VJP1253	CONNECTOR (MALE)	1	
			TRANSISTORS		
Q1601		2SB936-P	TRANSISTOR	1	
Q1602		2SD601	TRANSISTOR CHIP	1	(Q,R,S)
Q1603		2SB709	TRANSISTOR CHIP	1	(Q,R,S)
Q1604		2SD601	TRANSISTOR CHIP	1	(Q,R,S)
			RESISTORS		
R1601		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R1602		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R1603		ERJ8GEYJ152	M.RESISTOR CH 1/8W 1.5K	1	
R1604		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R1605		ERJ3GEYJ682	M.RESISTOR CH 1/16W 6.8K	1	
R1606		VSF0059	FUSE	1	
R1607		ERDS2TJ181	C.RESISTOR 1/4W 180	1	
R1609		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R1610		ERJ3GEYJ393	M.RESISTOR CH 1/16W 39K	1	
R1611		ERJ8GEYJ152	M.RESISTOR CH 1/8W 1.5K	1	
R1612		ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	1	
R1613		ERJ3GEYJ3R3	M.RESISTOR CH 1/16W 3.3K	1	
R1614,15		ERJ8GEYJR68	M.RESISTOR CH 1/8W 0.68	2	
			BATTERYS		
Z1601		VSB0166	BATTERY	1	
	■	VEK5862	ZOOM C.B.A.		(NLA)
			SWITCHES		
SW1890		EVQQSU04W	SWITCH	1	
SW1891		EVQQSU04W	SWITCH	1	
	■	VEK5865	CHARA/GENE C.B.A.		(NLA)
			CONNECTORS		
P1402		VJJ0163	JACK	1	
P3001		VJS172B005	CONNECTOR (FEMALE)	1	
PJ1402		VJP3130	CONNECTOR (MALE)	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
	■	VEK5868	FE HEAD C.B.A.		(NLA)
			CAPACITORS		
C1901		ECEA1CKS100	E.CAPACITOR 16V	1	
C1902		VCYD1E103MR	S.CAPACITOR 25V 0.01U	1	
C1903		VCYD1E682KH	S.CAPACITOR 25V 6800P	1	
C1904		ECQV1H563JZ	P.CAPACITOR 50V 0.056U	1	
			COILS		
L1901		VLQEL05F221K	COILS 220UH	1	
			TRANSISTORS		
Q1901		2SC2603AE2F	TRANSISTOR	1	
			RESISTORS		
R1901		ERDS2TJ822	C.RESISTOR 1/4W 8.2K	1	
			TRANSFORMERS		
T1901		VLQ0586	TRANSFORMER	1	
	■	VES0689	MECHANISM CONNECTION C.B.A.		(NLA)
			(MODE SELECT SWITCH UNIT)		
			MISCELLANEOUS	1	
		ON2170	PHOTO COUPLER	1	
		VJP1229R	CONNECTOR (MALE)	1	
		VJP3318A008	CONNECTOR (MALE)	1	
		VMX1280	SENSOR SPACER	1	